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JAN 3 1 1950

The ILLINOIS Medical Journal

VOL. 97 ✳ NO. 1

January, 1950

Andy [illegible] (center) proudly exhibits the gold medal given him by the A.M.A. "for [illegible] regional service by a general practitioner" to Ernest E. Irons (left) President of the A.M.A. as W. L. Pressly who won the Award in 1948 voices his approval.

(See page 5 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

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OF GALLBLADDER DISEASE

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RESEARCH IN THE SERVICE OF MEDICINE

Entered as Second-Class Matter July 21, 1919, at the Post Office, Oak Park, Illinois, under the Act of March 8, 1879. Acceptance for mailing at special rate of postage provided for in section 1102, Act of October 8, 1917, authorized July 15, 1918. Office of Publications, 715 Lake Street, Oak Park, Ill.

medical
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The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

Harold M. Camp, EDITOR. Theodore R. Van Dellen, ASSOCIATE EDITOR.

EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry Culver, Walter Stevenson, Raymond W. McNealy, Arkell M. Vaughn.

Vol. 97, No. 1 January, 1950

ANDY HALL — GENERAL PRACTITIONER OF THE YEAR

The 1949 winner of the American Medical Association's gold medal "for exceptional service by a general practitioner" is Andy Hall of Mt. Vernon, Illinois. Dr. Hall was elected to this signal honor by the House of Delegates at the Interim American Medical Association Session held in Washington, December 6-9. Dr. Hall had been persuaded to be nearby at a place where he could be found "in case lightning did strike", so within an hour after he was chosen as the outstanding general practitioner of the nation, he was literally "meeting the press". At one time he was being interviewed by 24 reporters, was being photographed by 13 camera-men, then appeared for movie and television news casts. Several recordings were made, one for the State Department's "Voice of America" program, then he appeared on television and on three nation-wide broadcasts.

The Big Moment! Ernest E. Irons, Chicago, hangs the gold medal around Andy Hall's neck signifying his selection as the outstanding general practitioner of 1949.

The gold medal was presented to Dr. Hall by Dr. Ernest E. Irons, Chicago, President of the American Medical Association, at 5:00 P. M., Tuesday, December 6, at the reception given in his honor. Thus, an honor was conferred upon an Illinois man by an Illinois man — the outstanding general practitioner of the United States, and the President of the American Medical Association, respectively. "Andy" made an appropriate extemporaneous talk which was thoroughly enjoyed by all those present.

The December issue of the Illinois Medical Journal published a picture of Dr. Hall and a story relative to his having been chosen at the state level as the outstanding general practitioner in Illinois, and the information was given that

(*Continued on page 4*)

After winning the award Andy Hall gives an extemporaneous talk to the assembled delegates. His modesty, sincerity and genial personality "won" his listeners easily. The scene is in the Statler Hotel.

Rear Adm. John P. Whitney, USN, Vice Commander, Military Air Transport Service, describes the workings of a model C-54 air evacuation plane in the office of his son, Col. Wilford F. Hall, Surgeon, MATS. The plane can airlift military patients more than 2000 miles in less time than it took Dr. Hall to reach some of his patients when he started practicing. Andy Hall's two other sons are also physicians.

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Send advertising copy, and all communications relating to advertising to ILLINOIS MEDICAL JOURNAL, 30 N. Michigan Avenue, Chicago.

Original articles and membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Managing Editor, 30 N. Michigan Ave., Chicago 2, Illinois.

Subscription price of this JOURNAL to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Puerto Rico, Philippine Islands, Hawaiian Islands and Mexico. $4.00 per year for all foreign countries included in the postal union. Canada, $3.50. Single current copies, 50 cents. By mail, 60 cents.

he would be the candidate from the Illinois State Medical Society for the honor which he actually received December 6 in Washington.

Dr. Hall is the third physician who has been given the award for outstanding general practitioner, for in 1947 Dr. Archer Chester Sudan, Kremmling, Colorado was selected, and at the 1948 Interim Session the honor was given to Dr. William Lowry Pressly, Due West, South Carolina.

In accordance with the established regulations, the Board of Trustees select three from the list of candidates submitted to them by the state medical societies and these are reported to the House of Delegates and the ballot cast by this official group. Two candidates reported to the House of Delegates, in addition to Andy Hall, were Thomas Edward Rhine of Thornton, Arkansas, and Lyle Hare of Spearfish, South Dakota. On the first ballot Dr. Hall received 74 votes; then the second ballot was taken and Dr. Hall received 104 votes and Dr. Rhine 69. "Andy" was declared the winner.

The ten thousand members of the Illinois State Medical Society are thoroughly convinced that the House of Delegates made the proper selection and that Dr. Hall will do all that is expected of him during the coming year to show the nation that the family physician still occupies an important place in the provision of medical care in a nation which still believes in private enterprise, and that the physician-patient relationship is still cherished by the American people. Dr. Hall, long an important figure in his home community and a large area surrounding Mt. Vernon, now has nationwide recognition, and his life and professional achievements are those of a typical family physician.

DUES FOR THE AMERICAN MEDICAL ASSOCIATION

The House of Delegates of the American Medical Association voted to assess the members of the association $25.00 annual dues. For 102 years all the members of county and state medical societies have automatically become "members" of the American Medical Association. They have paid no dues to the parent organization for over a century.

Income from the Journal of the American Medical Association and from their other publications paid expenses, built their home office at 535 North Dearborn Street, Chicago, paid for the activities of the various Councils and Bureaus.

Because physicians paid no dues, many did not realize that they were "members" of the American Medical Association, and the difference between membership and Fellowship in the American Medical Association confused the issue in the minds of many physicians.

Now when dues are collected at the county level from each physician, he will pay:

(1) his county society dues
(2) his state society dues
(3) his American Medical Association dues.

The American Medical Association dues for the year 1950 will be $25.00. For this $25.00 the members of the American Medical Association will be contributing to the national educational campaign against compulsory health insurance.

But that is not all. Now physicians will be helping to support the various activities of the American Medical Association. The work of the Council on Medical Education and Hospitals affects the life of every physician in every community. The Council on Pharmacy and Chemistry passes on the drugs and equipment used in the office of every physician today. The Council on Foods and Nutrition protects the health and welfare of the people of this nation. Add to this list the Council on Physical Medicine and Rehabilitation, the Council on Medical Service, the Chemical Laboratory, the Bureau of Exhibits, the Judicial Council, The Bureau of Legal Medicine and Legislation, the Council on Industrial Health, the Council on National Emergency Medical Service, the Bureau of Medical Economic Research, the Bureau of Health Education, the Committee on Rural Health. The list is long and the work is outstanding in all fields.

Write this office for the 1949-1950 "Handbook" of the American Medical Association and familiarize yourself with the services given you as a member of the American Medical Association. *Learn to use these services at the individual and county levels.* The organization is yours, and it exists because of you and for you. Use it.

DETAILS TO BE WORKED OUT.

When anything new in the annals of any organization occurs there are problems to be faced, situations to be corrected, changes to be made. At this time many questions exist relative to the new membership on a due paying basis. May we cite some that arise in this state alone: What recognition will be given our Emeritus and Past Service members at the national level? What recognition will be given our Resident members at a national level? What constitutes the basis for Fellowship today? Which of our members are now eligible for Fellowship? Must a man be dropped from membership in his county and state society if his American Medical Association dues are unpaid? If so, when?

In anticipation of these differences throughout the 48 states, the House of Delegates of the American Medical Association placed the responsibility of adjustment upon the shoulders of the Board of Trustees of that organization. Rulings will be developed as situations are called to the attention of the Board. Actions will be taken and information disseminated as soon and as accurately as possible.

For the first time in 103 years, each physician in this nation will feel more keenly and realize more truly that he, from his individual standpoint, is a member of "organized medicine", at the county, the state, and the national level.

MEDICAL HISTORY AT THE COUNTY LEVEL

D. J. Davis M.D.*

An important part of the work of the Committee on Medical History consists in the encouragement and promotion of studies of the Medical History for each of the Counties of the State. Several such medical histories already have been written and others are now in the course of preparation.

It is the feeling of the Committee that most valuable contributions can be made by the individual societies by assembling all records that can be obtained in the way of life histories of local doctors, their careers and writings, items relating to local or regional medical societies, both official and non-official, medical events and monuments, plaques, etc., honoring physicians. Also data concerning doctors who may have been born or lived part of their lives in the County, later perhaps moving to other localities.

Histories based on data thus obtained are naturally to a high degree accurate and dependable for the medical history of the State can be little more than the sum total of the records of the lives and activities of its doctors. In time we then may have a collection of basic medical facts invaluable in the preparation of more general histories of medicine not only for the State of Illinois but for the entire United States. Similar local and county histories in England and elsewhere have been prepared in the past and have proved of great value for later and more general historic contributions.

*Permanent Historian, Illinois State Medical Society.

THE SIXTH NATIONAL CONFERENCE OF COUNTY MEDICAL OFFICERS

An outstanding feature of the Clinical Session of the American Medical Association was the Grass Roots Conference held on Thursday evening, December 8, 1949. It marked the sixth national meeting of the county medical society officers, and was attended by upwards of 150 in the Presidential Ballroom of the Hotel Statler, in Washington, D. C.

The meeting was called to order by the Chairman, Dr. A. M. Mitchell, of Terre Haute, Indiana who introduced Dr. Louis H. Bauer, Chairman of the Board of Trustees of the American Medical Association. Dr. Bauer welcomed the group with pointed remarks directing attention to the importance of the individual doctor in any given community.

Two men, Dr. A. L. Tuuri of Flint, Michigan, and Dr. Roy L. Scott of Buffalo, New York spoke of outstanding local achievements in their respective communities. Flint, Michigan, especially, has done a splendid piece of work in the community activity of their local doctors. They have developed programs for the care of the indigent, for coverage of the community during holidays, for night calls, and have especially emphasized in the Mott Children's Center the prophylactic care of children in communicable disease.

An interlude was produced by introducing Senator John McClellan of Arkansas. He, in company with other senators, visited in Europe recently, and has come to realize that the indi-

vidual must jealously safeguard those liberties so painfully won through the past ages. As he saw it, the great danger in America is that we will be inattentive to the loss of minor privileges. He said that we, as doctors "must not miss an opportunity to improve ourselves in a scientific way, and we must be continuously conscious of of America's heritage".

An outstanding part of the program was the address by George N. Craig, National Commander of the American Legion. He gave the receptive audience a tremendous boost by saying: We in the American Legion have problems in common with you of the American Medical Association. We like our American Way of Life. We have an investment in it. We believe in freedom of enterprise not only in industry, but in the professions as well. We in America represent 7% of the world's population and possess the greater part of the world's wealth. Under free enterprise in America you doctors have developed the lowest mortality rate, and now the American people are going to be asked to accept a system in use by the decadent nations of Europe. I say to you, the American Legion is opposed to this program. You as doctors represent a greater single group which has the opportunity and the respect of individual communities to carry forward American principles."

Next he directed attention with general remarks to the Hoover Commission noting that the conclusions of the commission were 18 in number, all designed to save tax money and give us greater efficiency in government. He was opposed however, to their recommendations suggesting dismembership of the Veterans Administration, but he nevertheless joined with us in every other phase designed to work out plans for economy in Government.

Dr. Thomas D. Dublin, Executive Director of the National Health Council, with headquarters in New York, dwelt at length on that organization's program in developing community health activities. Many times in the early days under inspiration of Dr. Haven Emmerson, he pointed out that the A.M.A. was the first to recognize the need for and to community leadership of community health programs.

For those communities just organizing such activity, he suggested the booklet, "The Stepping Stones for a Health Council" available through their headquarters.

The closing paper was given by the Past President of the Medical Society of the District of Columbia, Dr. Joseph Wall. He emphasized that doctors must act as leaders and not as camp followers in the matter of community health because the Federal Government would only too eagerly step into the picture and take over entirely.

To quote Doctor Wall: "Webster defines a "community" as "A body of persons having common rights, interests and privileges." It is our belief as a prognosticator that in the exercise of these attributes, vigorously maintained against the onslaught of ill advised interference, we shall continue to be able to call our country the land of the free, nor shall the birthright of freedom be sold for a mess of pottage brewed by a paternalistic government or its political potentates!"

This indeed touched the keynote for the welfare of the American people in the matter of community health leadership, namely the doctor *must* assume the key roll in any program, and only by this means can we really call this nation "The Land of the Free".

H. Kenneth Scatliff, M.D.,
Secretary, Chicago Medical Society

YOUR ANNUAL MEETING-SPRINGFIELD MAY 23, 24, 25

MEDICAL ECONOMICS

The Medical Economics Committee. Chauncey C. Maher, Chmn., Hubert L. Allen, Emmet B. Bay, Edwin F. Beker, Carroll Birch, Thomas C. Browning, Roland R. Cross, James Graham, George Halperin, Edwin S. Hamilton, Ford K. Hick, Edwin F. Hirsch, May McDonald Milligan, Marie Wessels, Walter M. Whitaker, Holland Williamson.

Appraisal of Quality of Medical Care

To a bystander a discussion of quality of medical care might suggest a commodity like cotton or eggs available in bulk and of nearly uniform grade. Of course this is ridiculous since medical care is highly individual yet adjusted to broad social patterns. There is an abstract almost spiritual aspect to a service which places the welfare of the patient above all other considerations.

Every Dean of a medical school continuously appraises the quality of medical care delivered in his institution. Every department head does the same thing. Slowly such observations lead to readjustment of personnel. American medicine owes much to this slow method by which teaching institutions continually raise the standards of their own work and so set standards for their communties and the nation.

Each physician licensed to practice is qualified under the law. For care of our own families, however, we seek services of men whom we know and respect. A specialist certified in his field might be thought of as a source of superior medical service yet by becoming a specialist he has lost some skill, insight or familiarity with other branches of medicine. Further, no two specialists are identical in training experience, interests and in personality factors like health, vigor, optimism, imagination, etc. These differences are so great that all of us give serious thought to selection of a specialist best suited for our patient.

Experience in reviewing professional work done in hospitals has accumulated through the Council on Medical Education of the A.M.A., the American College of Surgeons, and the military and veterans hospitals. For "a registered hospital" the examiner visitor from the A.M.A. observes the physical plant, the medical staff, facilities for special services as pathology, the nursing service and the medical records. These requirements are easy for most hospitals. However, there is no rating as superior, satisfactory or fair. The examiners are physicians. Many former examiners have subsequently reached distinction in practice and administration of medical schools. No doubt the experience of studying the workings of many hospitals has proven valuable to them.

In World War II the Army and Navy untilized selected specialists as "consultants". These consultants visited hospitals in their area and became acquainted with chiefs of services and ward officers. By brief but intimate contact with the individual physician and his patients the consultant had a good chance to appraise the work done by the hospital and by the individual physician. This system required for its success careful selection of consultants with wide experience who were free from prejudice and who sincerely had in mind the good of the service. The system also required command authority to effect reassignment when necessary. In peace time a similar system of consultants is used by the Veterans Administration. All reports must, of course, be confidential and available only to proper administrators.

In the past three years the Health Insurance Plan (HIP) in New York, (personal communication from Dr. Geo. Baehr) has inaugurated group practice of about 26 groups. The board of governors has access to records of each group and so has a unique opportunity of a comparative survey of several groups. No doubt publications from Dr. Baehr and his associates will report some of their experience.

In short appraisal is possible if there is access to case records. Although this has been done with hospitals and even with clinics no one can imagine it for individual physicians even under a system of state medicine. There is clearly no way that the individual doctor can be stamped grade A, B, C, D etc. and no way can be imagined.

How then can a layman properly select a physician. Probably only a few physicians are available so the group he will study is small. Among this number personal liking, convenience and promptness may complete the selection. However, the best selection can be made by a layman almost as well as by another physician. This appraisal concerns the character of the doctor. When the layman finds a physician who combines availability and competence with intellectual honesty and humility he has found a superior physician. A convenient test is "when does he seek help from a consultant?" and another is "can he quickly make decisions which reduce his own income?"

A famous internist visiting in Chicago asked a younger colleague "If you were sick, to whom would you go for care?"

The younger man answered "Dr. M takes care of me".

"I never heard of him" commented the visitor."

"No and you may never hear of him. But I have known him for 15 years as absolutely straight and have seen him ask for help in difficult situations so that I know how he'd look after me if the situation became serious."

—*F.K.H.*

ANTIBIOTIC DRUG REPORTED EFFECTIVE FOR WHOOPING COUGH AND VENEREAL DISEASE

Aureomycin, the golden-colored antibiotic drug, is effective against whooping cough and lymphogranuloma venereum, a minor venereal disease, two Minneapolis doctors reported today.

Recent experimental and clinical studies indicate that aureomycin is effective in whooping cough, Drs. Wesley W. Spink and Ellard M. Yow of the University of Minnesota Medical School said in the Dec. 3 Journal of the American Medical Association.

The ulcerative venereal disease also responds favorably to treatment with aureomycin, they added.

Aureomycin appears to be of little or no value in chickenpox and mumps, however, the doctors found.

STATE DEPARTMENT OF PUBLIC HEALTH

Public Health — Our Mutual Responsibility

Roland R. Cross, M.D.,
Director Illinois Department of Public Health
Springfield

I welcome this opportunity to discuss the growing importance of the relationship between veterinary science and the sciences having to do with the health of man. For much too long a time in the history of human disease, the idea has prevailed that the human species is unique from all other members of the plant and animal kingdoms. For much too long a time the principles of ecology which deal with the mutual relations between organisms and their environment have been applied to only a limited extent in the attack on diseases common to both man and animals.

It is quite generally conceded (among men, that is) that man is the highest form of life on this planet and to him all else is as a part of his environment. Theoretically and apparently, he is in control. With the exception of a few men who, like Albert Schweitzer, have arrived at a philosophy of universal reverence for all living things, people for the most part, regard all else on this planet as quite secondary to the purposes and destiny of man — neither of which, I might add, seem to be very clearly defined. Therefore, with the idea of our homo-centric world, we can expect to find little interest in the well being of the animal population except as such a state of affairs bears directly on the interests of man.

So, despite the fact that the veterinarians and physicians are gathered here to discuss their mutual responsibilities in the control of disease, I believe it only fair to point out that the pitch of the discussions will center around measures of cooperation between veterinarians and public health physicians in the common problems attending human diseases in which there are animal reservoirs. This limitation to the direction of flow of ideas still defines an area much too large and complex and as yet too poorly understood in some of its branches to be exhausted in either this meeting or the foreseeable future.

Presented at the Joint Dinner Meeting of Veterinarians and Public Health Physicians, Springfield, Nov. 16, 1949.

From the earliest of recorded times, man has been dependent on animals to meet various needs in his pursuit of life on this planet. In this relationship, he recognized the existence of certain hazards although his limited scientific knowledge did not permit refined deductions. One of the oldest and best known demonstrations of his recognition of the importance of animal disease to public health is the ancient Hebrew law against the eating of pork. In all probability, Moses and his contemporaries did not see the trichina, but reached a deduction through the humble application of common sense, the procedure which now bears the dignified name epidemiology.

The history of neither human medicine nor veterinary medicine during the middle ages was very bright. Perhaps from our point of view, the 16th Century classic of Fracastorius "De Contagione" (on contagion) was the most important work until Snow, Budd, Panum and Murchison began their monumental studies in the 19th Century. These five men, widely separated in time and in particular nature of their subject matter, were able, through observation and careful thinking, to begin to break the popular attachment to the idea that epidemics and so-called visitations were a phenomenon of retribution superimposed by an exacting deity. They paved the way for Pasteur and Koch to extend the earlier contributions of Spallanzani and van Leeuwenhoek. Jenner, capitalizing on some earlier work and on his own astute observations, came forth with a procedure for selective and deliberate prevention of a human disease. This phenomenal development which occurred one hundred fifty years ago was dependent upon observations and deductions on a pox that affected both man and the cow. The immunological interrelationship has been one of the great blessings of our age. There is, I believe, still some debate as to whether smallpox and cow pox are identical diseases with different manifestations in virulence according to species of host.

From the earliest years of the 20th Century, our knowledge of microbiology has continued to grow. During this period the veterinarians have made a commendable showing in the control of anthrax, glanders, foot and mouth disease, and bovine tuberculosis. The low incidence of these diseases and the prevalence of safety measures against them has resulted in the general impression that these diseases are either extinct in the United States or are reduced to a point from which they can never again rise to importance. Unfortunately, these diseases are not gone like the dinosaurs, but are merely held in abeyance by a number of factors which have disturbed the host-parasite relationship. It must be made more generally known, by the physicians and veterinarians in public health, that this balance now prevailing is only an ephemeral state of affairs and may be upset for better or for worse by changes in present policies of man-made control.

Notwithstanding the commendable efforts of veterinary medicine, the organisms of rabies, brucellosis, listerellosis, actinomycosis, trichinosis, anthrax, mastitis, leptospirosis, and salmonellosis remain important threats to public health. Although the public health physicians have not been idle with regard to pursuing these community health problems, we have not made the inroads originally expected. Perhaps the limited success is attributable to the fact that up to this time, each of our two professions has been trying to solve these large ecological problems by means of a more or less restricted program of attack circumscribed by the tenets of the respective professions. For all practical purposes, the causative agents of these diseases do not differ from host to host; so the challenges they present should be attacked by a united effort. Perhaps there are other diseases which in time will manifest themselves as having a significant correlation between man and animals. Some of these may well be encephalomyelitis, Newcastle disease, poliomyelitis and influenza. We should be prepared to meet these existing and probable circumstances with a broad understanding of the principles of biology and a social consciousness and a spirit of cooperation that will know no limits.

To return to a fuller discussion on the major current challenges:

Brucellosis, which is primarily an animal disease may affect some twelve different animals and man. In both cattle and human beings, the infection is serious business. In the dairy industry, the economic losses are staggering and in man, treatment has up to this time been most discouraging. Pasteurization of milk, done according to the letter of the procedure, would prevent most of the human cases of the disease.

Unfortunately, not all milk sold is pasteurized and not all pasteurization is faultless. Therefore, both the treatment and the prevention of this disease in man leaves much to be desired. To aid in prevention, one of the techniques used by the health officer is the epidemiological investigation. In this procedure of follow-up on a case, the veterinarian is a logical participant in the search for the source and the mode of transmission of brucellosis. The veterinarian ideally should be an important part of the public health team working on those problems which are common to man and animals.

With regard to rabies, the medical control of this public health problem has not met the issue at its most vulnerable point. As many of you know, the old established public health measure of preventing human rabies through the Pasteur treatment, has critical short-comings. The most commendable solution to our mutual problem lies in mutual collaboration to control the disease in its sub-human reservoirs. By attaining certain levels of immunity to rabies in the dog, veterinary public health can virtually control this long-standing threat to the health of man. There is a big job to be done in educating the public on the importance of vaccination of dogs and the significance of the epizootics in wild animals.

We have observed that veterinary cooperation with public health officers and with physicians in the investigation and reporting of animal disease incidence of danger to man can provide the link between disease and health which otherwise is too often missing in the medical effort to protect the health of man. The veterinarian is the man who is trained in the science of diseases of animals; he is the man who can and should bring to public health education the information on animal diseases and the know-how of control. The veterinarian should share in the initial planning on public health programs aimed at control of human diseases which also have an animal host. The veterinarian by virtue of his background, his professional training and his professional contacts knows agricultural and rural bionomics and economics, and through this knowledge he can give valuable help in the organization and execution of programs designed not only for control and prevention of the animal diseases transmissible to man, but for the development and maintenance of practices contributory to animal health.

The veterinarian, equipped as he is, can lend added authority to the importance of public health programs in nutrition. He can contribute valuable aid toward keeping up the numbers and the quality of food-animals and their products.

I wish I had more knowledge about the specific areas of impingement of medical and veterinary sciences. It now seems perfectly reasonable that although there are only a few areas at this time well defined, there will be an expanding list of diseases which skip about through the animal kingdom. In some ways we have given up the animal-man liaison of disease; for we no longer are content to believe that warts come from toads, and there is such a thing as "animal magnetism," and that the taking of concoctions made from certain parts of animals will cure human ailments of these parts. We have departed from the conviction that the big bottle of Dr. X's magic remedy, once a fixture on the pantry shelf, can cure all nature of things in man and beast.

From these early ideas of man-animal relationship, the medical sciences have departed into a pattern of extreme and alarming specialization. In the health field, as in most fields of human endeavor there is now an earnest search for some over-all system whereby the advantages of specialization may be maintained while the ideal of cooperation is realized on the level of action.

In our respective professions, there is much highly technical information bearing on highly selected problems. We will, I hope, be able to meet jointly the growing number of problems wherein the two sciences come together at the level of action. I believe that with the logic of the scientific method and with the broad philosophy of ecology, we can fulfill at once the diversifying and uniting tasks imposed upon us by man's desire to control disease.

CORRESPONDENCE

WOMAN'S AUXILIARY PROGRAMS

Soon we will begin a new calendar year and just as business firms take inventory, we should take stock of our stewardship as members of the Woman's Auxiliary to the American Medical Association. Will our reports of our programs at the end of the year record growth; will we be able to report that we have met opportunities and responsibilities? We are needed now more than ever.

The following outline was mailed in August, 1949, to all county program chairmen: (Suggestions for Monthly Programs)

I. Twelve Point Program of the American Medical Association for the Advancement of Medicine and Public Health.
   1. A Federal Department of Health.
   2. Medical Research
   3. Voluntary Insurance
   4. Medical Care Authority with Consumer Representation
   5. New Facilities
   6. Public Health
   7. Mental Hygiene
   8. Health Education
   9. Chronic Diseases and the Aged
   10. Veterans' Medical Care
   11. Industrial Medicine and Accident Prevention
   12. Medical Education and Personnel

II. The A.M.A. — its history, function, work of the various councils, bureaus and other departments.

III. Study legislation — local, state and national, which affects health and medicine.
   1. Truman's Compulsory Health Insurance Plan
   2. Oscar R. Ewing's "The Nation's Health — a Ten Year Program"
   3. A.M.A.'s Answer to Compulsory Health Insurance

IV. Voluntary Prepayment Medical and Hospital Care plans
   1. Familiarize yourself with the plan used in your state

V. State Board of Health
   1. Study services available

VI. Local Health Department
   1. Study services available in city and county

VII. School health program

VIII. Rural Health Problems and their proposed solutions

IX. Nurse Recruitment
   1. Methods and information available

X. Radio Programs of the A.M.A. presented by the Bureau of Health Education

XI. Hygeia

The main objective of the Auxiliary has always been to extend the aims of the medical profession to all organizations which look to the advancement of health and health education. To interpret these aims to others *we* must be well informed ourselves.

Let us acquire a *speaking* knowledge as well as a *reading* knowledge. Let us continue to work and serve to the best of our ability. Many differences exist in the counties. Material that is excellent for one many not be suitable for another. We must learn the pattern of thought in our community. As families of physicians let us give to our communities skilled leadership to better health.

If you have not read the article, "What Every Doctor's Wife Should Know," by Mrs. Carl

Sibelsky in the October, 1949 issue, please do so now. It will be of much value to you. Let us aim to have every member interested and informed. Let us live up to this poem:

To what do you owe your success
Was asked a certain man?
Why, I just plan my work
And then work my plan.

(Mrs. J. M.) M. G. McDonnough
3578 Armitage Avenue
Chicago 47, Illinois

Program chairman Woman's Auxiliary to Illinois State Medical Society.

ANNOUNCEMENT OF VAN METER PRIZE AWARD

The American Goiter Association again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held in Houston, Texas, March 9, 10 and 11, 1950, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double spaced copy in duplicate sent to the Corresponding Secretary, Dr. George C. Shivers, 100 East St. Vrain Street, Colorado Springs, Colorado, not later than January 15, 1950. The committee, who will review the manuscripts, is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author, if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association.

MISSISSIPPI VALLEY ESSAY CONTEST

The tenth annual essay contest of the Mississippi Valley Medical Society will be held in 1950. The Society will offer a cash prize of $100.00, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics and education) and practical value to the general practitioner of medicine. Cerificates of merit may also be granted to the physicians whose essays are rated second and third best. Contestants must be members of the American Medical Association who are residents and citizens of the United States. The winner will be invited to present his contribution before the fifteenth annual meeting of the Society to be held in Springfield, Ill., Sept. 27, 28, 29, the Society reserving the exclusive right to first publish the essay in its official publication. All contributions shall be typewritten, submitted in five copies, not to exceed 5000 words, and must be received not later than May 1, 1950.

Further details may be secured from Harold Swanberg, M.D., Secretary, 209-224 W. C. U. Building, Quincy, Illinois.

STERILITY AWARD

The American Society for the Study of Sterility is offering an annual award of $1,000 known as the Otho Award for an essay on the result of some clinical or laboratory research pertinent to the field of sterility. Competition is open to those who are in clinical practice as well as to individuals whose work is restricted to research in basic fields of full time teaching positions. The prize essay will appear on the program of the forthcoming Meeting of the American Society for the Study of Sterility, which is to be held at the Sir Francis Drake Hotel in San Francisco on June 24 and 25, 1950.

Full particulars may be obtained from the Secretary, Dr. Walter W. Williams, 20 Magnolia Terrace, Springfield, Massachusetts. Essays must be in his hands by April 1, 1950.

CLINICS FOR CRIPPLED CHILDREN LISTED FOR FEBRUARY

Nineteen clinics for Illinois' physically handicapped children have been scheduled for next month by the University of Illinois Division of Services for Crippled Children. The Division will conduct 14 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medial social and nursing services. There will be 4 special clinics for children with rheumatic fever and 1 for cerebral palsied children.

Clinics are held by the Division in cooperation

with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are ceritified Board members. Any private physician may refer or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

The February clinics are:

February 1—Aurora, Copley Hospital
February 2—Litchfield, St. Francis Hospital
February 7—E. St. Louis, Christian Welfare
February 8—Hinsdale, Hinsdale Sanitarium
February 9—Springfield, St. John's Hospital
February 9—Glenview, Village Hall
February 9—Elmhurst (Rheumatic Fever), Memorial Hospital of DuPage County
February 10—Chicago Heights (Rheumatic Fever), St. James Hospital
February 21—Carrollton, Baptist Church
February 21—Peoria, St. Francis Hospital
February 22—Springfield (Cerebral Palsy), Memorial Hospital
February 22—Chicago Heights, St. James Hospital
February 22—Vandalia, American Legion Home
February 23—Normal, Brokaw Hospital
February 23—Chester, St. John's Lutheran School
February 23—Rockford, St. Anthony's Hospital
February 24—Chicago Heights (Rheumatic Fever), St. James Hospital
February 28—Peoria, St. Francis Hospital
February 28—Effingham, (Rheumatic Fever), Douglas Township Building

In carrying on its program the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse associations, local social and welfare agencies, local chapters of the National Foundation for Infantile Paralysis and other interested groups.

"YOUR MENTAL HOSPITALS" INSTITUTIONS FOR THE MENTALLY DEFICIENT

There are two institutions in the State of Illinois for the care and treatment of mental defectives, namely, Lincoln State School and Colony and the Dixon State Hospital.

Illinois became aware of the problem of mental defectives in the early part of 1850, but it was not untl 1865 that the Legislature passed an Act creating an institution for "feebleminded" children. In May of 1865, the first three patients were admitted to this institution, which was opened in the City of Jacksonville. This became the eighth institution for the care of such children in America, and the first one in the northwestern states. A year later, the population of the institution numbered nine, and by the third year there were 26 patients, filling to capacity the building which was leased.

More space was ordered and by 1869 there was 63 patients. In 1875, the institution was moved to Lincoln, Illinois, and by 1880 there were 296 patients. After only four years the institution was not large enough to answer the demands made upon it. A second institution, the Dixon State Hospital, at Dixon, Illinois, was established in 1918 to relieve some of the overload.

Population has gradually increased from three patients in the year of 1856 to 4700 mentally deficient patients at the Lincoln State School and Colony, and 3700 mentally deficient patients at the Dixon State Hospital, making a current grand total of 8700 patients. (The Dixon Institution also cares for and treats 1000 epileptics and post-encephalitics.) Both of these institutions are overcrowded. It seems that no matter how large the institutions are, the demands made upon them create a serious overcrowding.

One frequently associates admissions of the mentally deficient to youth, but there is no age limit. The patients vary from infants a few days old to the aged, seveny-five to eigthy years old. Admissions are either voluntary or by court commitment, and are in accordance with the new Illinois Mental Deficiency Act, which became operative on October 1, 1949, and the procedures of which are outlined in last month's journal.

Due to the overcrowding, there is a waiting list for the admission of infants, children and adults. Admissions are authorized according to the urgency of the situation.

(Future articles will describe the care and treatment of the patients.)

G. A. Wiltrakis, M.D.
Deputy Director

ORIGINAL ARTICLES

Pulmonary Tuberculosis in Children Treated with Streptomycin

E. T. McEnery, M.D., H. C. Sweany, M.D., and G. C. Turner, M.D.
Chicago

The literature on the treatment of pulmonary tuberculosis with streptomycin during the past few years has been voluminous. No chemotherapeutic agent has been subjected to such close control experimentally and clinically, and it is the common feeling that streptomycin has accomplished unprecedented results in the treatment of certain types of tuberculosis. Most of the reports in children have been limited to cases of meningitis and miliary tuberculosis. Sanford reported four cases of pulmonary tuberculosis treated with good results in 1947. Because of the limited work on childhood tuberculosis we felt that a larger series of cases should be studied and reported.

In the beginning of this work we considered the advisability of observing a control group. Since we have had the opportunity, however, of observing a large group of cases of tuberculosis in children over a 15-year period, it was felt that we could use the later cases as controls and give the benefit of the drug to all the severely ill, open and active cases in our hospital.

It is a clinical fact that many primary lesions in children, after a long and tedious course of treatment of one to two years or longer, may reach a stage where they are considered arrested. The plan of treatment during these fifteen years was rest in bed, good nursing care and nutritious diet. Some of the cases treated did not get better. A disseminated pulmonary tuberculosis

From the Clinical and Research Departments of the City of Chicago Municipal Tuberculosis Sanitarium.

This investigation was supported (in part) by a Research Grant from the Division of Research Grants and Fellowships of The National Institutes of Health, U.S. Public Health Service.

Presented at the Annual Meeting, Ill. State Med. Soc., Chicago, May 18, 1949.

developed and the child died. There was no way to tell when one case would recover and when another would progress to a fatal outcome.

Our work was hampered at first by the cost of the drug, but by a special order by the Board of The Chicago Municipal Tuberculosis Sanitarium in November, 1947 all streptomycin was furnished free of charge to all patients in whom the Medical Board considered the treatment indicated.

Plan of Study.—All of these cases were under observation for periods of from two to thirty-six months. A complete history was taken on each child with special emphasis on contact with a person with tuberculosis. We were certain that all the criteria for a diagnosis of an active pulmonary process were present before any streptomycin was started. To be definitely unbiased about any case, each child's history was reviewed by a "Streptomycin Board" consisting of three clinicians, one thoracic surgeon and one pathologist. It was its function to evaluate each case and suggest a plan of streptomycin therapy. The Board would also suggest when the record should be returned for review and evaluation. Ten cases were rejected by the Board because they were not considered suitable cases. These children had progressed satisfactorily under conservative treatment, and it was felt that streptomycin therapy would add nothing to their progress.

All cases had positive sputums from either gastric washings or bronchoscopic aspirations. These positive sputums were confirmed with cultures and guinea pig inoculations. They all had positive Mantoux tests. Roentgenograms were all positive for lung infiltration, usually of an advanced degree.

During the course of treatment each case was very closely observed, both clinically and roentgenologically. X-rays were taken once a month during active use of the drug and every two to three months after stopping streptomycin treatment. All the children were kept on essentially the same rest program. Blood counts and sedimentation rates were taken at least once a month. After streptomycin therapy was stopped, gastric and bronchoscopic washings and cultures were made on each case. Before a child could be considered for discharge we required two negative gastric washings and one negative bronchoscopic aspiration.

Type of Tuberculosis.—Of the twenty-five cases treated, twenty-two were classified as having a progressive primary lesion. This type of lesion is of relatively recent origin, sometimes demonstrated on physical examination by impaired resonance and suppressed breath sounds but more than likely not revealing any change. The x-rays showed a soft infiltrative process, usually extending out from the hilum to the periphery of the lung, with some enlargement of the hilar shadows.

Three cases were classified as Far Advanced Adult Type of Pulmonary Tuberculosis, with activity and large cavities. These children had failed to respond to bed rest and pneumothorax regime and had been on a downward course for a period of two years.

Age of the Patients.—In the Progressive Primary Lesions the ages varied from eight months to fifteen years.

In the Far Advanced Adult Type of Pulmonary Tuberculosis the patients were eleven, twelve and thirteen years respectively.

Of the total twenty-five cases, eighteen were colored and seven were white.

There were eleven males and fourteen females.

Dosage of the Drug.—In the beginning of this study the majority of the cases received 0.5 gms. in divided doses, twice daily. This has now been reduced to 0.3 gm. once daily for all children.

Duration of Treatment.—Sixteen cases were placed on the drug for 120 days. Nine cases were treated for 60 days.

Blood Levels of the Drug.—Blood levels have not been taken as a routine measure, but spot checking on cases has shown blood levels in the morning before injection to vary from 0.5 micrograms to 1.0 microgram per c.c. Six hours after administration of 0.3 gm. of streptomycin the blood level had risen to 6.0 to 8.0 micrograms per c.c. of blood, a good therapeutic level.

Toxic Manifestations of the Drug.—Using the smaller dosage, namely 0.5 gm. once daily, toxic reactions have not been present. No auditory or vestibular disturbance has been noted during active therapy or after the drug was stopped. Audiometer and caloric tests were not found feasible. Simple clinical tests for hearing and equilibrium were found to be normal. Skin reactions have not been present although one patient who had been receiving 2 grams of streptomycin daily for ten days previous to admis-

Table 1

PROGRESSIVE PRIMARY PULMONARY LESIONS

AGE IN YEARS

0-1	1-2	2-3	3-4	4-6	6-8	8-10	10-12	12-15	Total
2	3	5*	2**	2	2	1	3	2	22

*W. B. Died seven months after streptomycin of tuberculosis meningitis

**M. W. Died one year after streptomycin — surgical death

ADULT TYPE PULMONARY LESION

10-12	12-15	Total
2	1†	3

†C. W. Died six months after streptomycin

sion to our hospital had a diffuse erythematous rash all over his body which persisted for five days after the drug was stopped. He was started on 0.1 gm. daily after the rash disappeared and no further trouble was experienced.

Urinary Findings.—A trace of albumin has persisted in about 65% of these cases while under active drug therapy, but this has disappeared when the drug was stopped. This was felt to be due to a transient irritation of the kidney.

Response to the Drug.—The clinical response has been the same in all cases. This has occurred in a week to ten days. The following reactions have been noted consistently: A drop in temperature, improvement in appetite, change in disposition, and lessened irritability. Expectoration is a negligible factor in this type of case. The psychological factor, which greatly influences the above observations in treating adults, played no role in the treatment of these children. As far as we have been able to determine, no injurious effect was incurred except when large doses were used, as in the case of the child who received 2 grams of the drug daily for ten days before admission and developed a generalized rash.

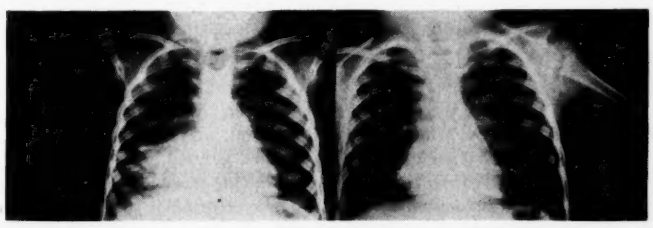
Physical Findings.—In the Progressive Primary cases, even though the general well-being of the patient improved in the very short period of seven to ten days, it was at least one month before any changes were noted in the physical examination which then revealed improved resonance, better transmission of breath sounds, and fewer rales.

In the Adult type, the physical findings remained about the same. In two of the cases the findings became more marked. One child became decidedly worse and expired, seven months after streptomycin therapy had been completed.

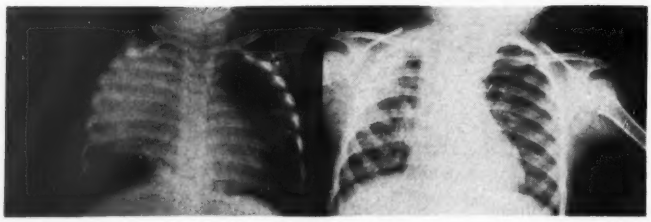
Roentgenograms.—The changes that were demonstrated in the monthly films were very slow to make their appearance. It was usually three months before a definite change could be noted. These changes were slow but it has been interesting to note that improvement has continued, eight months after stopping the drug.

CASE HISTORIES

Case 1. K.J., white female, age 2 years, contact unknown. Developed a fever in November, 1947 with a slight cough, loss of appetite, irritability and easy fatigue. Admitted to The Children's Memorial Hospital in January, 1948. X-ray revealed an exu-



Case 1. K.J., White, female, age 2 yrs. x-ray (left) Feb. 1948 (right) Feb. 1949.



Case 2. R.R. Colored, female, age 2 yrs. x-ray (left) Nov. 1947 (right) Mar. 1949.

dative lesion at the right base. Gastric washings positive for tubercle bacilli. She was transferred to The Municipal Tuberculosis Sanitarium in April, 1948 and was started on streptomycin, 0.3 gm. once daily. Laboratory findings: RBC 4,690,000; WBC 7,500; sedimentation rate 15 mm. August, 1948; October sedimentation rate 2 mm. X-ray showed gradual clearing of process at right base. Physical findings have improved, transmission of breath sounds normal and no rales present. Gastric washings have been negative for tubercle bacilli. The last x-ray in March, 1949 shows right base cleared.

Case 2. R.R., colored female, age 2 years, contact cousin. In July, 1947 developed a cough and fever; taken to Cook County Hospital. Positive Mantoux; bronchoscopic aspiration positive for tubercle bacilli. Developed a pleural fistula. In September, 1947 transferred to The Municipal Tuberculosis Sanitarium. Physical examination revealed a very poorly nourished colored child with marked suppression of breath sounds over whole right side of chest and a discharging sinus in axillary line. Laboratory findings: RBC 3,800,000; WBC 6,700; sedimentation rate 25 mm. Condition grave. In November, 1947 placed on streptomycin 0.5 gm. daily. The temperature dropped to normal in three days, her appetite improved, and her irritability lessened. In ten days she was a different patient. The x-rays showed little improvement for at least three months and then began to show a clearing; this has continued even though she has not had any therapy for over a year. She left the sanitarium in April, 1948 and has been followed as an outpatient since.

Case 3. M.G., colored male, age 2½ years, contact, sister. Admitted to The Municipal Sanitarium in February, 1948. History of cough and temperature; contact with sister who is in sanitarium. Physical examination: Fairly well nourished colored boy; resonance impaired a left apex with suppression of breath sounds. No rales. Marked reaction to Mantoux test. Started on streptomycin 0.3 gm. daily for 60 days; received a total of 24 gm. Left sanitarium October, 1948; followed in the Outpatient Department. Gaining in weight and doing well at home. Last x-ray taken in March, 1949.

Case 4. W. B., a three year old white male. This child was admitted to The Children's Memorial Hospital with what was thought to be a terminal condition, having far advanced lung disease and draining neck sinuses. Physical examination showed a very ill child, marked emaciation and extensive pulmonary involvement. Impaired resonance and breath sounds at both right and left apices with marked involvement at the left base. Rales and amphoric breathing at both apices. Gastric washings positive for tubercle bacilli. Laboratory findings: RBC 3,759,000; WBC 8,500; sedimentation rate 29 mm. He was started on large doses of streptomycin, ¼ gm. four times daily. After ten days he was transferred to The Municipal Tuberculosis Sanitarium. On admission he was very toxic; a diffuse erythematous rash covered his body. The pulmonary findings seemed to have progressed. It was the feeling that this boy would only survive a few days. He was given intravenous fluids and blood transfusions. Because of the rash the drug was stopped. After five days the rash faded and he was started back on streptomycin 0.1 gm. daily. In two weeks his temperature returned to normal and his whole picture began to improve. The x-rays changed very slowly and the physical findings made little progress. The sinuses in his neck gradually closed; he gained in weight and was up and around a little each day. His course of treatment had been 120 days. In November, five months after stopping the drugs, he became nauseated and developed other signs of meningitis from which he expired within two weeks. This child was one of the Primary Progressive Lesions whose gastric washings remained positive after streptomycin therapy had been stopped.

Necropsy findings (Dr. H. Sweany): Death was caused by a basal meningitis which was not unusual. It developed from a streptomycin-resistant strain of tubercle bacilli which was found to have resistance to 10 micrograms on three different occasions. The lungs were remarkable, in that they presented marked healing in a far advanced and ulcerative tuberculosis. There was an excavation of most of the middle lobe with a residue of calcified, caseous material around the margins and numerous granular concretions in all the interstices of the cavity. The calcified foci appeared to be greater in age than ever seen before in a four year old child. The cavity generally had a smooth wall, some of which was becoming relined with epithelium. Another large cavity and more recent was present in the right upper lobe which had contracted to about a third of its former size. There was practically no pyogenic layer left and much fibrosis was present in the wall of the cavity. In the left upper lobe there were many tubercles heavily encapsulated and calcified. The complete autopsy findings showed that considerable healing changes had taken place before the meningitis

caused his death. We felt that these changes were due to the effect of streptomycin.

Case 5. V. W., age 12, colored female, contact unknown. Child was apparently well until June, 1947. Developed a cough and felt tired. She was taken to The Municipal Tuberculosis Sanitarium Dispensary where her sputum was examined and found positive for tubercle bacilli. Child was admitted to Sanitarium in July, 1947. Laboratory findings: RBC 4,220,000; WBC 6,650; sedimentation rate 19mm. Physical examination revealed a very thin, toxic girl with cavities at both right apex and left base. For three months bed rest did not change the progress of the disease. In November, 1947 she was started on streptomycin, 0.5 gm. once daily for 120 days. Within a week her well-being improved, her temperature dropped to normal, her appetite picked up, and she appeared less toxic and gained in weight. The x-ray did not improve and her physical findings became worse. She has continued a downhill course after stopping streptomycin and is now in a terminal stage.

DISCUSSION

Many of the children with Progressive Pulmonary Lesions have been sent home. They have been followed closely at monthly intervals. A few of these children, previous to streptomycin therapy, had been confined to the hospital for a period of two years. They had been unable to be discharged because of repeated positive sputum for tubercle bacilli. One child in addition to his pulmonary pathology had a tuberculosis of the elbow joint with a discharging sinus. This had been operated and casts had been on and off for two years. Two weeks after streptomycin was started the sinus closed and has remained closed up to the present, fifteen months after streptomycin was stopped.

From our experience with this series, we are hopeful that we may be able to treat a larger number of children and shorten their stay in the hospital. In all but four of the twenty-five patients we have been able to convert the sputum to negative. Our criteria for discharge from the sanitarium consist of two consecutive negative gastric washings and one bronchoscopic aspiration negative on both smear and culture. Two of the remaining positive cases have been of the Adult Type and two of the Progressive Primary. These four cases have shown slight resistance to streptomycin on sensitivity tests.

The dosage of the drug has been low, which we feel was the reason for not having any toxic reactions. Even though the dosage has been low we have demonstrated a good clinical response. Single doses have lessened the presence of nodules, which at times caused a great deal of discomfort to the children.

We are not of the opinion that every primary tuberculosis lesion should be treated with streptomycin. If the case has been under observation for a sufficiently long enough time to note that the lesion is not progressing satisfactorily under conservative treatment we feel that streptomycin should be used. This drug does something to the tuberculous lesion which we have never seen before. Clinically there is an immediate improvement in the well-being of the child. He is less irritable, the temperature drops to normal, the appetite improves, and the child gains in weight. The physical findings are slow to improve, at the earliest two months, while the x-ray changes may take three months.

On the basis of clinical, roentgenologic and bacteriologic observations it was clearly demonstrated that the degree of the therapeutic efficiency of streptomycin is definitely related to the character of the pulmonary lesion. Improvement occurred much more frequently in patients with early disease than with those having chronic lesions.

We feel strongly that streptomycin should be added to the armamentarium of physicians for the treatment of Progressive Primary Tuberculous Lesions.

SUMMARY AND CONCLUSIONS

The results of streptomycin treatment in Progressive Primary Tuberculosis may be summarized as follows:

1. It uniformly lessened and in most cases obliterated the toxic manifestations in 25 patients treated. The improvement usually became apparent within a few days after the treatment was begun.

2. It reversed the general downward clinical course of the disease.

3. The physical findings improved and were clearly demonstrable in 30 to 60 days after treatment was begun.

4. The decreased roentgenologic findings followed the improvement in the clinical picture.

5. Sputum conversion was completed in four to five months in 89% of progressive primary lesions.

6. The hospital stay was uniformly reduced roughly from two to three years to six to eight months' time.

Adult Type of Pulmonary Tuberculosis—This group of three cases was too small to be statistically significant, but from our observations of these children it was felt that the results were similar to cases of chronic pulmonary tuberculosis in adults, treated with streptomycin in this and other institutions. Two of these cases were only temporarily improved. One of these died and the other is now in a terminal stage. The third child has had a left pneumonectomy and is making satisfactory progress, three months after surgery.

In spite of the fact, however, that streptomycin has shown great promise especially in Progressive Primary Tuberculosis in children it should not be considered a cure-all; its use is still in the experimental stage and larger numbers will have to be observed over a longer period of time before an exact and complete evaluation of its worth in this field can be given.

Acute Intestinal Obstruction

Arkell M. Vaughn, M.S., M.D., F.A.C.S.
Chicago

The success in treatment of acute intestinal obstruction depends largely upon *early diagnosis, skillful management* of the case, and an appreciation of the fact that it is just as important to *treat the effects of the blockage* as the cause.

The mortality from intestinal obstruction has been reduced markedly in recent years, but it still ranges from 18 to 50 per cent.

TYPES

The main types of intestinal obstruction from the standpoint of causative factors are:

I. *Mechanical,* where the intestinal contents are prevented from passing along the bowel by an actual obstruction of the lumen of the gut. This type of obstruction may be subdivided into

A. *Simple obstruction* where there is a complete blockage to the passage of intestinal contents. There are three main types of simple obstruction; namely,

1. *High small gut obstruction* characterized by profuse vomiting and loss of fluids, and
2. *Low small gut obstruction* characterized by progressive intestinal distension which causes severe local effects in the obstructed bowel.
3. *Large gut obstruction* where the acute stage is never so dramatic as in small gut obstruction partly because the colon has time to adapt itself to the stasis and is rarely complete.

B. *Strangulation* where there is besides the obstruction to the lumen, an obstruction to the blood supply of the obstructed bowel.

II. *Paralytic or Nervous* where the intestinal contents do not pass along the bowel because the intestinal muscle cannot provide the necessary propelling force. The gut wall is not truly paralyzed but its activity appears to be inhibited by an overactive sympathetic nervous system.

III. *Vascular,* either

A. *Arterial by embolism* (rarely thrombosis) from

1. The heart in endocarditis
2. The lungs in pyemia, or
3. The arteries in atheroma.

From the Departments of Surgery, Stritch School of Medicine of Loyola University, Mercy and Cook County Hospitals, Chicago.

Presented before the Aux Plaines Branch of the Chicago Medical Society, April 22, 1949, Oak Park, Ill.

B. *Venous by thrombosis* from

1. Portal obstruction due to fibrosis, obliteration, or compression of the portal vein
2. Peripheral sepsis from septic thrombosis in acute appendicitis, hemorrhoids, etc.

In this paper mechanical obstruction only will be stressed.

SYMPTOMS AND SIGNS

The cardinal symptoms and signs of acute intestinal obstruction are:

1. *Pain* which comes on abruptly, colicky and lasts from one to three minutes. It increases in intensity often to agonizing seizure and ceases as abruptly as it began only to recur again and again. The physician should place a stethoscope upon the abdomen and if the pain is due to intestinal obstruction he will hear a metallic, bell like sound or a bubbling, gurgling sound associated with rushing bowel sounds during the height of the pain episode. Pain and increased intestinal sounds appearing at the same time are pathognomonic findings of intestinal obstruction. Pain plus localized tenderness indicate strangulation of the intestine.
2. *Nausea and vomiting* are generally early symptoms in small bowel obstruction. The higher the obstruction, the earlier, more severe, copious and intractable is the vomiting. Feculant vomiting occurs early in low small bowel obstruction. Patients with large bowel obstructions rarely vomit and if they do it occurs late in the disease.
3. *Obstipation* is usually classed as one of the important symptoms of obstruction; however, it is a late and unreliable symptom of obstruction. A patient may be constipated for a week or more and yet suffer from no signs or symptoms of obstruction. Another patient with a strangulated loop of small intestine may have a free action of the bowel some hours previously. In Richter's hernia and in intussusception there may be normal bowel movements; again in acute obstruction of the left colon due to a stenosing carcinoma, an enema may work out the contents of the intestine distal to the stoppage. A two quart diagnostic enema is an aid in the diagnosis of large bowel obstruction since the large intestine can usually retain two quarts of fluid plus its intestinal contents. If the bowel cannot take the two quarts, this speaks for a large bowel lesion. Another aid in diagnosing whether the obstruction is complete or incomplete is to give one or two ounces of mineral oil by mouth and then inspecting the enema returns for oil droplets a few hours later. If oil droplets are found it speaks for an incomplete obstruction, while if no oil returns in repeated enemas a complete obstruction is suspected. A patient with complete intestinal obstruction passes neither flatus or feces per rectum.
4. *Distension or tympanites* is generally present in cases of bowel obstruction. The degree of distension depends upon the site of the blockage and upon the "time factor". In high small gut obstruction (jejunum) the stomach distends with gas and accumulated secretions, and the epigastric region becomes prominent. In low small gut obstructions (ileum) the central portion of the abdomen is moderately distended and in large gut obstructions (distal colon) there is considerable universal distension and marked bulging in the flanks. Percussion reveals no shifting dullness in the flanks.

In determining distension we utilize the anatomic relationship of the umbilicus to the xiphoid process. The normal abdomen is scaphoid and not flat, hence the umbilicus is normally placed below a line drawn from the xiphoid to the pubic tubercle.

The abdomen is called flat when the umbilicus is on a level with the xiphoid. The abdomen is described as *distended* when the umbilicus is above the xiphoid. When the abdomen is flat or distended some pathological condition is suspected. A differential diagnosis of the seven "F's", as given by P. Thorek is indicated when such an abnormally placed umbilicus is found. The seven "F's" are, namely, fat, feces, fluid, flatus, fetus, fibroids and "Ph"antom tumors. In most cases these have been found to be the underlying cause of the distension. If the circumference of the abdomen is measured at the site of the umbilicus when the patient is first seen and then at hourly intervals, and index as to the degree of distension can be ascertained and treatment instituted, many times with gratifying results.

5. *Tenderness* is of the utmost importance in differentiating simple from strangulated obstruction. In simple obstruction there will be little, if any, tenderness. If the bowel is strangulated, there will be definite peritoneal irritation from blood and infection transmitted from the bowel and this irritation will signify itself by a definite tenderness and spasm of the abdomnial wall on palpation. Pain plus localized tenderness indicate strangulation of the intestine. A classical example of this is a strangulated inguinal hernia.

Diagnosis

The diagnosis is based upon the history, the above signs and symptoms, x-ray, laboratory and rectal findings. Patients with intestinal obstruction, who have had previous surgery, have small bowel obstructions until proved otherwise. Ninety per cent of simple acute large bowel, obstructions are due to either carcinoma, diverticulitis or fecal impaction. Large bowel obstruction resulting from postoperative adhesions is a rarity.

Laboratory data reveals a high hemoglobin and red blood count due to dehydration, as well as a high white blood count. The urine may be scanty, of high concentration and may show albumin and casts. Low chlorides, increased carbon dioxide combining power and increased nonprotein nitrogen generally are found only in high bowel obstruction.

X-ray examination by means of a "scout" film of the abdomen in the supine position preferably when the patient first enters the hospital and repeated every six to twelve hours is very essential in establishing a diagnosis. This immediately reveals the bowel pattern and also determines whether or not flatus is present in the hollow of the sacrum. If the flatus over the hollow of the sacrum is absent following repeated enemas the obstruction is considered to be complete but if flatus continues to come down and appears over the sacral region the obstruction is considered to be incomplete. At an early stage in obstructive lesions of the large bowel the flat plate may show the cecum to be blown out with gas and may show gas distending the colon, ending abrutptly at the site of obstruction, and appears as a horseshoe or inverted "U". The obstruction is usually in the rectosigmoid. A barium enema will usually locate a descending or sigmoid colon lesion. In paralytic ileus the large as well as the small bowel is distended.

Visible gas in distended loops of small intestine in adults is synonymous with intestinal obstruction. At a later stage the typical stepladder like formation of distended loops of small intestine that will often show haustral markings are seen. These are frequently confused with loops of the colon. Fluid levels can often be seen in such an x-ray examination. An obstructing gall stone in the lumen of the small intestine may be shown.

Rectal examination enables the surgeon to feel the pelvic viscera and perhaps to find distended loops or tumors of the lower ileum or pelvic colon, to discover local growths and strictures low down in the bowel and to ascertain if the rectum is ballooned, filled with blood and slime or firmly impacted with fecal concretions.

TREATMENT

The remedial procedures and agents which have proven to be of the greatest value in the treatment of bowel obstruction are:

1. *Decompression* by a Levin, Miller-Abbott or Rawson-Abbott tube connected to a Wangensteen suction apparatus. This will in some instances convert an acute obstruction into a chronic one. The tube should be inserted immediately upon admission to the hospital and should remain during and several days following surgery or until normal pertistaltic sounds are heard.

2. *Correction of dehydration and fluid imbalance* by intravenous administration of (a) saline, (b) glucose in saline and (c) Ringer's or Hartmann's solution. These likewise should be started immediately so as to prepare the patient for surgery if necessary. A urinary output of 1,000 cc. or more each 24 hours is desirable.

3. *Maintain the protein balance* by the administration of (a) plasma or serum transfusions, (b) intravenous amino acids and (c) blood transfusions if the obstruction is associated with blood loss. Healing of the suture lines, if surgery is performed, is augmented by correction of hypoproteinemia as well as the hyperchloremia.

4. *Replacement of loss of Vitamins B and C* by intravenous or intramuscular injections. Vitamin C is very essential for wound healing.

5. *Administration of chemotherapeutic agents* as the sulfa drugs, and the *antibiotics* as penicillin, streptomycin and chloromycetin both be-

fore and after surgery has helped to decrease the mortality in intestinal obstruction.

6. *Surgical intervention* is imperative in strangulated lesions as soon as the patient's condition permits. If this is accomplished within the first 24 hours, the mortality is greatly reduced. When in doubt as to the location of the obstructing lesion the abdomen is best explored through a right paramedian para-umbilical incision, one third of the incision being above and two-thirds below the umbilicus. The incision can then be extended if necessary, upward or downward. A blood-tinged peritoneal exudate indicates strangulation which most commonly is in the small intestine. Collapsed ileum near the cecum indicates small bowel obstruction, while a distended cecum indicates obstruction in the colon. The hernial orifices should first be explored and if found negative a very careful exploration of the small intestine from the cecum upward will usually find the obstructing lesion. When found the surgeon must determine whether the strangulated intestine is viable and can be returned to the abdominal cavity or whether it will have to be resected or exteriorized. One of the simplest procedures to determine the viability of a strangulated piece of intestine is to flick it with the finger after warm moist applications have been applied. If peristaltic waves occur the intestine is viable and can be returned into the abdominal cavity. Other methods of determining viability are to have the patient breathe pure oxygen and observe the color of the bowel. The procaine test, where 10 cc. of two per cent procaine is injected locally around the mesentery, releases the vasospasm and hyperemia results. The fluorescein test has been described where 5 cc. of five per cent fluorescein solution is injected intravenously, the operating room darkened, and the bowel observed under ultraviolet light. A golden green color indicates viable intestine.

If the intestine is not viable and not too distended and thin, a resection with a laterial anastomosis can be performed. Exteriorization alone, or exteriorization with an entero-enterostomy are other alternatives. Ileostomy, in my opinion and experience, is not a good procedure.

Complete nonstrangulated large bowel lesions require immediate colostomy in order to release the intracolonic pressure. Opinions differ as to whether a cecostomy or a tranverse colostomy is the operation of choice. In my opinion there is a place for both, but in recent years I have been leaning toward tranverse colostomies.

SUMMARY AND CONCLUSIONS

1. The types, symptoms and signs, diagnosis and treatment of acute intestinal obstruction have been discussed.

2. Diagnosis and treatment within the first 24 hours will markedly reduce the mortality in intestinal obstruction.

3. Abdominal auscultation will aid in the diagnosis.

4. Measure the circumference of the abdomen on a level with the umbilicus every few hours to determine if distension is increasing.

5. Get a flat x-ray plate of the abdomen (scout film) every 6-12 hours to determine whether large or small bowel obstruction is present.

6. Give mineral oil by mouth and examine repeated enema washings for oil to determine if the obstruction is complete or incomplete.

7. A two quart enema will help determine if the obstruction is in the large intestine.

8. Percussion of the flanks for shifting dullness will determine whether air of fluid is present.

9. Rectal examination will locate low lying growths and strictures.

10. A proctoscopic examination may reveal a lower bowel lesion which may be overlooked by x-ray examination.

11. Barium enemas may locate the obstructing lesion higher up in the colon.

12. Early surgical intervention is indicated in strangulated and obstructive lesions as soon as the patient is prepared.

13. Examine hernial orifices for obstruced bowel.

14. Do open rather than closed intestinal anastomosis.

15. Do lateral anastomosis preferably to end-to-end.

16. Do not anastomose greatly distended bowel.

17. Handle greatly distended or other bowel gently, since rupture of the small intestine can occur.

18. Determine viability of bowel before returning it into the abdomen.

19. Do not give barium by mouth in suspected complete intestinal obstruction.

20. Do not do an enterostomy unless it is a last resort.

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How Does Malaria Interest the Practitioner in Illinois?

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When I was asked to talk on malaria before the Illinois State Medical Society, I felt that many of you would wonder why a disease seemingly foreign to the practices of most of you should be chosen as the topic for discussion, especially at a time when the recurrent cases of World War II are disappearing. Indeed endemic malaria in the United States is disappearing. I do not propose to go into any discussion of why this reduction has occurred because over the past decade many factors have operated toward this end, improved economic status, improved nutrition, increased medication, more screened houses, more spraying in general against insect pests (lately DDT in particular), as well as the development of new and better drugs. Yet I hope to show you why malaria, and, with it as an example, some other diseases seemingly as remote are still important to you.

Malaria has been reported in Illinois for many years. Recently the figures have been increased by cases of imported malaria in returning veterans of World War II. In the years 1941 and 1942, 219 cases were reported in Illinois[1]. I choose these two years because the increase in more recent years from returning veterans, 565 cases in 1946, for example, was not felt then and the earlier figures give a better picture of the normal situation. To give you some idea of the incidence of malaria as compared with seemingly more familiar diseases, in those years more cases of malaria were reported in Illinois than cases of each of the following: infectious encephalitis, meningococcic meningitis, paratyphoid fever, smallpox, tularemia, or spotted fever. And imported malaria will be on the increase! About two months ago the Army bomber, Lucky Lady II, flew around the world in thirty hours, passing every area in the world and every known disease hazard. Remote areas are less remote now. Almost daily I see patients who, six to twelve hours before, were in areas where yellow fever, dysenteries, and malaria are common. No longer do these people pass their incubation periods on the boats bringing them to United States ports, but long before the incubation period terminates in symptoms they may be in Chicago, Milwaukee, or any part of the United States, and develop their first symptoms there. Tropical, or international medicine, is now on the doorstep of all of us. We cannot limit our interests to the diseases of our own community, as we did even ten years ago. From the standpoint of malaria, this does not mean a deluge of new cases, but does mean that

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Presented before the General Assembly, 109th Annual Meeting, Illinois State Medical Society, Chicago May 17, 1949.

each of us more frequently in our daily practice must consider malaria in the differential diagnosis and occasionally face the question of adequate treatment.

My own conception of malaria in the broad sense is that it is not a single disease, but rather two diseases, that caused by the falciparum infection with its very special behavior, and that caused by the other species, namely vivax and quartan, the behavior of which may conform more closely to the generally accepted chills and fever cycle. With falciparum infections especially, symptoms may not suggest malaria, and often with vivax and quartan as well the so-called classical (periodic) fevers may be modified or absent.

The most exciting development in many years has been the recognition of the so-called exoerythrocytic phase of malaria, a phase important in vivax malaria for the infection may persist in liver cells (that is, outside the blood) and escape usual treatment so that relapses occur after therapy has been stopped.

But, rather than trying to cover the field of recent happenings in the problems of malaria, I would prefer to emphasize the basic facts in recognition and treatment, for your problem is not an endemic problem with its public health implications, but recognition, diagnosis, and treatment of occasional cases.

The first of these problems is recognition. Suspect the disease in every patient who has been in, or travelled through, endemic malarious country. Experiences of the past war have many times taught the importance of this rule. Until civilian practitioners developed an awareness of possible malaria, a number of instances of confusion in diagnosis occurred in soldiers flown home on leave. Let me give you a similar example from my own experience. A Brazilian sailor, 28 years of age, was brought to me by a student physician, also a Brazilian, because he had been suffering from headaches for the previous two weeks. These were severe, sharp, and right-sided, located over the parital and temporal regions, and were frequently set off by the patient's passing his hand through his hair on that side. He had consulted an internist five days before and had been advised, after an examination which included compression of the temporal artery, to have the temporal artery on that side tied off. There was little else to the story, except that the patient had shipped out of Brazil a week before reaching New Orleans. When questioned, he stated he had been treated for malaria three months previously. Physical examination showed nothing important but a temperature of 99.3° and a palpable tip of the spleen. Thick films were positive for falciparum malaria and treatment caused all symptoms to clear up. This patient could have been seen as easily in Chicago or Springfield as in New Orleans.

This case demonstrates several additional aspects of malaria that should be mentioned. In the first place, those not familiar with the disease frequently disregard the diagnosis until chills and fever appear. In chronic malaria, especially of the falciparum type, other symptoms are outstanding. Headache, as described in the above case is not infrequent. Others include nausea and vomiting (the "bilious" remittent type), delerium and coma, severe diarrhea, at times without fever, muscle cramps, or bronchopneumonic symptoms. But we cannot do justice to the symptomatology in such a brief listing. It will suffice to impress you with the protean nature of the symptoms of malaria.

Chills and fever are the characteristic symptoms of malaria, known to everyone, and should suggest the diagnosis; but chills and fever represent a symptom complex associated with many diseases and are not adequate for final diagnosis. Let me cite some personal observations in this regard. A 19-year old law student at Tulane developed a chill and fever and presented himself to a physician for care. History showed that he had lived all his life, until coming to school at Tulane, in a malarious district in Puerto Rico. He had been diagnosed as, and treated for, malaria while in Puerto Rico. With the present episode he was given some quinine tablets and sent to his rooms without blood examination. Chills and fever continued, so hospitalization was arranged. Here blood studies for malaria were done and were negative, but, because treatment had already been started, the negative results were ascribed to the drug and atabrin ordered. When the patient did not improve, more quinine was tried, and then intramuscular quinine. The temperature curve continued with a perfect quartan picture, and, after four weeks of failure to respond, the patient was labeled a "resistant" case of malaria and we in Tropical Medicine were asked to see him. I

found the history as described, but three facts indicated that, even with a past history of malaria, the boy did not have the disease. The white blood count was 11,000, an unusual figure in malaria; with vigorous treatment, no results had been obtained; there were three good sized erythematous plaques on the wrists. These were dull red and sharply circumscribed. These, with the elevated white count, suggested a pyogenic infection, notably chronic meningococcemia. I was so convinced of this that I ordered a blood culture and started sulfadiazine immediately. The clinical picture cleared abruptly and the blood culture was later reported as positive for Type II meningococcus.

Here, chills and fever with a typical quartan chart in a boy from a malarious area led to a suspicion of malaria. This was justifiable. But treatment before definite diagnosis lulled the medical observers into a false sense of security in diagnosis and delayed proper treatment for over four weeks — and treatment that was so simple, too.

Another similar example is that of a white woman, 26 years of age, who was admitted to the hospital with acute appendicitis. The first seven postoperative days were uneventful and at that time the patient was permitted to sit up. She had a chilly sensation and temperature elevation to 101°. Since she had been in malarious country some months before, malaria was suspected. Smears were negative and she was kept in bed two days. Since she again felt well she was permitted to sit up and again fever recurred. Antimalarial therapy was started. She was again put to bed two days with similar absence of symptoms. Then again, while walking about the solarium, fever appeared. As a visitor with some experience in malaria I was asked to see the patient. Close quizzing showed little historically except some slight dysuria. With this and fever appearing at times ambulation was started, I checked a urine specimen which preoperatively had been normal but now showed clumped pus. Cystoscopy revealed an extensively infected bladder, probably resulting from catheterization after operation and treatment produced complete recession of the febrile periods. The fact that anyone passing through, or from, a malarious area is potentially malarious should never be forgotten, but it is not adequate for a definitive diagnosis.

It is obvious that diagnosis should be made only by demonstration of the organism. All three of the cases described demonstrate this; one, a non-characteristic history which was proved to be malaria, the other two, strongly suggestive histories proved to be something else.

The confusion given above it not rare. We have been collecting case records of patients we have seen with chills and fever who have been suspected of malaria and treated for periods as such. A sixty-five year old man with recurrent chills and fever, treated for six weeks for malaria, was seen by me as an out-patient. Between episodes of fever he felt fairly well but was becoming weak. From the symptoms, his physician was convinced that the patient had malaria and had treated him for six weeks on that basis. Examination showed clear lungs, a systolic apical murmur, a palpable spleen, and little else. The white blood count was 9,000. We requested blood cultures and they were repeatedly positive for streptococcus. A diagnosis of subacute bacterial endocarditis was made and treatment with penicillin, delayed for six weeks by the antimalarial therapy, was effective. The man is still well two years later.

It is only by demonstration of malaria parasites that we know just what we have to treat. We know the type of malaria and can prognosticate as to recurrences which are to be expected in vivax malaria. We know we are not treating something else and depriving the patient of a form of treatment indicated by the proper diagnosis. Cases 3 and 4 demonstrate this error very clearly.

It is a common error to give a few tablets of quinine or atabrine rather than make a smear for diagnosis. With chloroquine, and an even shorter time for adequate treatment, this procedure is even more enticing. Then when a diagnosis is seriously sought, the therapy is said to have concealed it.

By the thick film method diagnosis can be made in 99.5 per cent of the cases of symptomatic malaria. In the past five years we have deliberately infected with malaria approximately 500 patients, the majority by blood inoculation but a certain number by inoculation through the bites of infected mosquitoes. Throughout the country many hundreds of such cases have been infected either in the course of the treatment of syphilis of the nervous system or in the study

of volunteers. It is, of course, true that infections do not always develop in 100 per cent of such cases. Where parasitemias are demonstrable there may not always be clinical manifestations of the infections.

I think it is very important to realize that in these thousands of cases, none has shown a single sign of fever or other reaction without the finding of the parasites either simultaneously or within the next forty-eight hours. In short, single brief examinations of a well made thick blood film on three successive days should demonstrate malaria parasites if they are present. Not only is the thin blood smear too difficult to stain properly, too tedious to examine, but it is particularly prone to artifactual conditions which cause wrong diagnosis.

The thick film is the only practical method and this is especially true in infections with a light parasite burden where tedious search is necessary to demonstrate the parasite in a thin smear. The thick films present many more parasites per specimen than do the thin smears. In the absence of the proper stain, thick smears can easily be made without any additional equipment at all, dried and mailed to a laboratory for diagnosis. The simplicity with which this can be done, if the practitioner objects to developing the staining technic himself, is such that there is *no* excuse for the treatment of malaria without a microscopic diagnosis.

The presence of the malaria parasite in a patient's blood does not necessarily mean that malaria is the sole cause of the symptoms. This is an important fact to remember. Patients with malaria may or may not have active symptoms from malaria when the parasite is circulating in their blood. They may have symptoms from other causes. Let me give you an example, again from my own experience. I was making ward rounds twice weekly for several weeks in a hospital in South America. Malaria was endemic in the area and every patient, regardless of symptoms, was required to have a malaria smear on admission. Late one night a male Indian was admitted and the smear examined in the night laboratory was positive for falciparum malaria. The physician on duty that night started chloroquine immediately. The next morning at rounds the chart was reviewed and the data given above noted. The spleen was palpated and treatment continued. The next day was one of

TABLE 1

SPECIES	DRUG	INDIVIDUAL
strain	varied effects	resistance
strain behavior	dosage	susceptibility
origin	suppression	tolerance
virulence		immunity

TREATMENT

of—The immediate attack	of—The underlying infection
Primary or Relapse	a—falciparum, potentially serious; readily cured
	b—vivax & quartan less severe; variable relapse rate

my regular days for ward rounds. I found the clinical state essentially unchanged and, going over the man, also found a right middle lobe pneumonia. Treatment with sulfadiazine caused a prompt improvement. This man had malaria, but he had pneumonia, too. In areas where chronic malaria exists, many patients develop a state of chronic malaria in which they carry on their work, although not at top efficiency, and live along with their malaria. Flare-ups occur with new fresh intercurrent disease and the physician must be alert for two disease processes and not one.

Closer to your home problems are the returned veterans with recurrent vivax malaria. Sufficient time has elapsed so that these cases are now terminating, the length of time during which relapses occur being about three years. Only about one per cent go over this time period. In many of these men we have had the problem, and I am sure you have had it too, of seeing other diseases giving febrile states that are confused with relapse.

The next patient is one who was hospitalized in Auburn, Alabama, in May of 1947. This patient, a 23 year old white male, reached New Guinea in 1943 and returned to the United States in December, 1945. During this time he took atabrine and had episodes which were probably actue attacks of malaria in October, 1944, October, 1945, and February, 1946. During 1946 he had repeated attacks of chills and fever, always with a negative blood examination. In November, 1946, a report from the Veterans Administration showed the finding of *Plasmodium vivax* following the administration of adrenalin. He took quinine continuously from December, 1946, to the end of March, 1947,

TABLE 2

DRUGS	QUINACRINE "Atabrine"	CHLOROQUINE (SN-7, 618) "Aralen"	CHLORGUANIDE (SN-12, 837) "Paludrine"
Dose in grams	0.100	0.500	0.100
Frequency	6-9 first 24 hrs., then t.i.d.	1.0 on diagnosis 0.5 after 6 hrs. 0.5 daily 2 days	b.i.d. or t.id.
For .... days	7	3	1-10-14
Blood level, gammas/100 cc.	40-150	100-160	25-150
Toxicity	nil or slight; yellow color	rare side effects	nil
Falciparum	cures	cures	cures
Vivax relapse	delayed	delayed	less delayed
Suppressive dosage	0.1 gm. daily	0.5 gm. weekly	0.3 gm. weekly

and on admission to the hospital he had complained of back pains so severe as to require morphia. Three daily urinalyses were reported as negative and the leukocyte count was 5,000. The temperature chart showed spiking twice a day with chills before the temperature rise. He received 10 grains of quinine every four hours for the first three days and then was given atabrine as indicated; and he continued to take atabrine (one tablet daily) until September. The casual observation of one or two tiny masses of pus-laden mucus floating above a rather heavy sediment of urates in a specimen passed in the office, resulted in this man's being referred to a urologist who discovered a left-sided pyelitis with torsion of the ureter. He has had no further

TABLE 3

DRUGS	ISO-PENTAQUINE (SN-13, 276, iso-274) Pentaquine	PLASMOCHIN	QUININE superseded since 1945
Dose in grams	0.010—0.020	0.010	0.6
Frequency	0.020 + 0.6 quinine t.i.d.	with quinine or following atabrine therapy, t.i.d.	only with plasmochin or pentaquine, t.i.d.
For .... days	14	5-14	7-10
Blood level, gammas/100 cc.	?	?	3-10 mgm./L.
Toxicity	½ of plasmochin	yes	nil, side effects
Falciparum	cures	cures	controls only
Vivax relapse	over 80% cures; may be given during parasite-free interval	decreased	early
Suppressive dosage	nil, too toxic	nil, too toxic	0.6 gm. daily (poor)

attacks since he was treated for that condition. Treatment for the urinary tract infection cleared the symptoms. The patient had had malaria, but he had something else with it. Many of these have been urinary tract infections, some upper respiratory and other infections. The patient often thinks it is his malaria and tells you just that.

It must be remembered that in the malarious patient all that is fever is not malaria.

When the diagnosis is settled, the problem of therapy arises. When you treat, treat adequately. With all the drugs now available, physicians with little experience with malaria may be in a quandary as to which drug to use and when. The accompanying tables summarize most adequately the data as to dose, length of time for adequate treatment, drug preferred in various types of malaria, toxicity and suppressive dosage. Table 1 shows the general approach to the treatment of malaria in an individual with regard not only to terminating the immediate attack but also to the effect on a possible relapse. The drug should be chosen with all these three factors in mind. Tables 2 and 3[2] show the drugs that are used. In the second table it will be seen that only atabrine, chloroquine and plaudrine are listed. Atabrine is included chiefly because of its availability. Chloroquine is the drug of choice for the treatment and termination of the immediate attack. Less efficacious and more useful for prophylactic purposes is plaudrine. Pentaquine and plasmochin are useful, together with quinine, in the treatment of the underlying infection and eradication of the disease. So it will be seen that quinine alone has little or no place in the treatment of malaria today.

SUMMARY

1. The importance of malaria to those living in areas not considered endemic is ever increasing with rapid air travel.

2. Adequate diagnosis of malaria rests upon suspicion of the disease in all persons having lived in or travelled through malarious territory, followed by blood examination by adequate methods.

3. The absence of, and the variation in, symptoms in malaria is not sufficiently recognized and should be stressed. In the malarious patient all that is fever is not malaria.

4. Therapy should be individualized as to patient and to type of malaria.

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FACTORS IN BETTER BREAST-FEEDING

There are a few bedside points which may contribute to better breast-feeding. The breasts of the mother lying flat in bed tend to roll off either side of the chest giving rise to undue congestion of the lower outer quadrants. Breasts will fill more uniformly and empty more completely if the mother wears a nursing brassiere in bed as well as while up. The breasts should never be bound tightly against the chest wall. The nipples should be cleansed before and after each nursing. A satisfactory method is the use of aqueous zephiran 1:2000 followed by sterile water. This preparation is less irritating than soap, less dangerous than boric acid, and more antiseptic than either of the other two preparations. Cleansing the milk from the nipples immediately after nursing and applying a sterile cellophane or gauze flat will prevent infection. Some physicians prefer the use of plastic nipple covers, known as "plasti-shields."

Excerpt: Breast Care in Pregnancy, John Parks, M.D., F.A.C.S., professor of obstetrics and gynecology, George Washington University School of Medicine; Medical Annals of the District of Columbia, August, 1949.

Dyslexia From the Physical Viewpoint

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Dyslexia (G. dys. abnormal, lexis, reading) is a syndrome characterized by an inability to learn to read properly even though the individual's intelligence may be normal or superior. Dyslexia is the resultant of all abnormal factors which interfere with learning to read. These factors are *functional,* observable, preventable and correctable, in contra-distinction to alexia.

It is the purpose of this paper to present certain broad aspects of the problem of dyslexia, to outline the influence of some psychophysiologic elements involved in reading difficulties, and to discuss the predominant physical findings in 215 cases of dyslexia under treatment.

Broad Aspects of Dyslexia.—Next to intelligence, which is so essential to learning, a healthy body is most important. The degree to which normal or abnormal functions influence the process of learning as a whole depends upon the individual's ability to adjust himself properly to the psychophysiologic stimuli that are imposed upon him. The degree of this homeostatic stability and adaptation depends on the degree of normality of all the diverse functions that are involved in the reading processes.

Reading is a complex achievement, and the more intelligent a person is and the more perceptual experiences he has encountered, the more quickly he learns from abstractions and symbols. If we accept the customary concept that reading is a simple reaction to visual stimuli, then it would be easily accomplished. However, in order to understand reading achievements and failures, it is necessary to consider the central perceptual and conceptual processes as well as the entire peripheral ocular mechanism in all its complexity and in addition the general physical status of the patient.

Nearly all of failures in the first grade are due to difficulty in learning to read, and that holds true also in the higher grades. According to educational surveys from 15 to 25 percent of the school population has some degree of dyslexia. The amount of retardation may be only slight or so great that their reading ability is on the second or third grade level when they are in high school. The socio-economic status of the family seems to have no significant influence on the development of dyslexia.

In the series of cases presented in this study, the average intelligence quotient was 108, with the highest, full scale I.Q. at 147. Peculiarly, boys having reading difficulties outnumbered girls 4 to 1. The average chronological age was 12 years 3 months. It is safe to assume that most cases of dyslexia develop in the early grades, which means that the child has been floundering about until he reaches the sixth or seventh grade before a *concerted effort* is made to diagnose and correct his difficulty. The chances are that nothing will be done about it until the school administrators, parents and the public are willing to abandon the idea that the teacher is entirely to blame for these failures. By no means should the teacher be relieved from her responsibility either. It is equally important that physicians assume their proper role in the solution of this problem.

Dyslexia cannot be considered as simply reading disability. It has many ramifications. In the entire syndrome one must investigate also the development of personality and emotional maturation and stability. In this investigation cognizance must be given to the hereditary traits and especially the environmental medium in which the child lives. As a result of his malachievement the child usually feels he is subnormal mentally and many times is so treated. He loses his self reliance and he may refuse to attempt even simple tasks. His feeling of belonging and personal worth may be affected adversely not only in the school group but in the family itself. Thus he begins to withdraw from social contacts and perhaps becomes a day dreamer to live in a world of his own making. He becomes frustrated and at times resents any attempt at correction. The printed word may re-

Read before the DuPage County Medical Society, Dec. 15, 1948.

From the Department of Ophthalmology, Northwestern University, and Dyslexia Memorial Institute. Memorial Institute.

call unpleasant experiences resulting in fears which are expressed throughout the entire emotional and physical reactions.

General Physical Study of Dyslexia.—The following data were catalogued after an analysis was made of the more prominent general physical conditions found in this study of 215 cases of dyslexia. The results and conclusions are presented with the preface that all data should be interpreted as being only a part of the syndrome. The syndrome must be evaluated in its entirety not only from the physical findings, but also the entire personality must be taken into consideration. This requires a complete history from every aspect, including intellectual and emotional appraisals, social investigations, educational achievements including special abilities, or disabilities and habits of work and play.

Disturbed Nutrition.—Evidence of disturbed nutrition as shown by the general appearance of the patient was present in many cases. Twenty-one percent had cervical adenopathy. Twelve percent were overweight, and seven percent were underweight. Concurrently ten percent were constipated which required dietary regulation and supplementary treatment.

Endocrines.—As reviewed by Ivy and Krasno it is generally accepted that the endocrines, especially the thyroid gland, are involved in the maintenance of the normal personality and intellectual functions.

One of the most outstanding facts which come from experimental and clinical research with humans is that the optimum effects of thyroid functions or medication upon mental growth occur before eleven or twelve years of age, and that administration of thyroid extract is almost futile after that age as far as mental growth is concerned. On the other hand, individuals who develop a hypothyroid condition subsequent to the full growth and maturation of their nervous system do not manifest a true mental deficiency, although they may become lethargic, "dull" and physically sluggish, whereas, the hyperthyroid individual is irritable, hyperactive and may be emotionally unstable. Adequate medication may change these symptoms and make the hypothyroid patient more responsive and the hyperthyroid individual less reactive. Tentatively, it may be said, however, that the quality of the mentality and personality of these individuals in either case have not been changed. Normal mentality and integrated personality, depend a great deal upon normal metabolic bodily processes, particularly the nervous system. To that end the endocrines, especially the thyroid, are important in children. Subsequent to full maturity the personality and mentality of the individual are quantitively regulated by endocrines upon the nervous system.

This should not carry the implication that reading difficulties are due to lack of normal mental development, although for certain cases this is indisputably true. In dyslexia a very large group of cases are not dull in learning in general, yet, they are poor readers.

In our study, 27 percent of the patients had hypothyroidism, and 4 percent had hyperthroidism. A few showed definite pituitary deficiencies. In order for a patient to be considered as having abnormal thyroid function it was necessary that he have symptoms which indicated theraputic intervention. The mere fact that a minus or plus metabolism was reported was not sufficient, although the average basal metabolism in the hypothyroid group was −15 and the hyperthyroid cases averaged +15.6.

Reaction to Stimuli.—Since reflexes are rather indicative of the status of the nerve reactions to stimuli, one must consider that 15% of our patients had sluggish reflexes, while 11% had exaggerated reflexes. Jerking of the head, twitching of face or other choreic symptoms were present in 6%.

As ideas and learning are basically the reaction to perceptual experiences arising from sensations, both motor and sensory, abnormal reflexes influence the individuals ability to respond to sensations normally. Normally according to his intelligence and ability to interpret his past perceptual experiences the person is enabled to arrive at an understandable concept, not only of his environment but also of his own intropective responses, in harmony with his psychobiologic needs. This response would be modified according to the degree of abnormal nerve reaction.

Enuresis.—The incidence of enuresis in our patients was 18% i.e. they gave a history of having had it, or it was still persistent. In enuresis one finds many cases who have a compulsive type of personality. Many continue to revert to infantile behavior, as occasionally evidenced by thumb-sucking or fingernail biting,

with immature attitudes were they refuse to "grow-up" and accept responsibilities, not only in school but in their entire social and personal growth. Not all who have this attitude are enuretic, nor do all enuretics have this attitude. There are innumerable factors which may cause this, but to mention one, a further investigation into the causes for the infantile temperament will often reveal that the mother or some one is still reading stories or his assignments to him. This would naturally eliminate any desire or incentive for the patient to read for himself. Furthermore he is getting attention which he craves and a feeling of security by being dependent. Oral reading to the patient is acceptable, providing it isn't used by him as an avenue of escape from his obligations of reading and preparing his assignments. One of the most difficult types of cases to correct is one in which all of the apparent irritating factors have been corrected and the parents attitudes have become wholesome, and yet the child refuses to do any reading. Sometimes it may require months before his shell of indifference is broken, but usually afterward they progress quite normally.

Nasal Factors.—The incidence of allergic manifestations of major importance was the same in this series as in the general population, 10%. The nasal obstruction resulting from allergic rhinitis, or any causes, interferes with proper breathing, causing some degree of anoxemia. In recent investigations, as reported by Andrews, by using the low pressure chambers, it was found that the first signs of the lack of oxygen, as a rule, were changes in mental efficiency. Problems which should have been solved were incorrect and the judgment was slightly reduced. These symptoms take place before there are any physical changes due to anoxemia. Sleep is disturbed, making it impossible for the patient to get proper rest and relaxation. These changes, if continued over a long period of time may have a detrimental effect upon the development of the child. As obstruction symptoms develop, the child takes on the appearance of a mentally dull individual, as in adenoid dysphasia. Whether their mentality is actually reduced or not, it is difficult to say.

Auditory and Speech Functions.—Hearing is such an important factor in language function it is important to make an audiogram in all cases. In addition conversational and whispered voice should be used in testing, for occasionally there is a wide variation found in the comparison of these two methods. This may be due to the child's general attitude of being inattentive or there may be some other reasons which must be determined.

Acute otitis media is usually the cause for the diminution of hearing in most cases. This may accompany any acute or chronic infection of the nose and throat as evidenced by hyperplasia and inflammation of the tonsils, adenoids, turbinates or hypertrophied lymphatic nodules on the posterior pharyngeal wall. Enlarged and infected tonsils and adenoids were present in 9% of our patients at the time of the original examination. Furthermore, as evidence of the severity of the early children diseases which the group had experienced, 14% gave a history of having had abscessed ears. A loss of hearing of 20 decibels or more was found in 23% of our cases on the date of admission to the Institute. This does not mean necessarily that the level of all frequencies were affected in all cases, for, in many cases there was a loss at certain frequencies only.

If a child cannot hear properly the influence upon spelling achievement is particularly noticeable, for apparently he misinterprets oral instructions and seems to become willfully heedless. Due to this hearing loss, the child may appear stubborn, indifferent, "dumb" and eventually becomes an extreme introvert the more he withdraws from social contacts. It is necessary that communications and directions given by parents and teachers to this child, be heard and understood. By all means seat the child in the school-room to the best advantage.

Whereas vocalization is the phase through which most of our ideas and instructions are expressed, and since it is so closely related to the hearing, one must consider the physical development and flexibility of the vocal organs and the patients ability to coordinate and control them during the production of speech sounds. Nine percent of our series were late in learning to talk. Many children who are unstable emotionally will show a blocking when required to read either orally or silently. We have had cases where they would become so emotionally upset and frustrated their voice became tremorous, their face became pale, and nervous twitching of their face was visible. It is quite

evident that no one, however, expert, could teach a child in that state of mind.

It is not to be presumed that the preceding discussion even approaches a complete coverage of the problem. The following are factors which were found coincidental with the others. Their percentages are recorded, without a general discussion as to their relation to the problem as a whole. It was felt, nevertheless, that they were significant in some of the cases where they occurred; cardiac arrythmia and murmur, 10%; need of dental care, 9%; asthmatic, 6%; anemia, 5%; high blood count, 3%; history of injury of head at birth, or subsequently, 6%; bronchitis and rales, 4%; in need of circumcision, 4%; history of rheumatic fever, 3%; undescended testicle, 2%; and rigid neck muscles, 2%. The Kahn test was negative on all of the patients.

*Visual Function.**—It is the customary concept that reading is simply seeing words, phrases and sentences. If it were as simple as that then the visual process would be practically the predominant factor in dyslexia. When a discussion of dyslexia is begun with most people, they preface the conversation with "that must be due to eye trouble." However, it is necessary to consider abnormalities of the eye as only a part of the symptom complex in retarded reading.

Only nineteen percent of the cases needed spectacles. There were twice as many farsighted as nearsighted patients. Several pair of glasses were removed which had been prescribed empirically to aid the patient with his reading. It is unfortunate that this is being done when glasses are not necessary, for some of the children had a high degree of exophoria which was aggravated by the convex lenses.

Ten years ago the number of investigations and publications dealing with the controversial question of dominance, eyedness, handedness, were considerably more than at the present. The evidence points to the conclusion that handedness is not significantly related to reading ability but that eye-hand dominance is probably present in some cases of reading disability.

In checking ocular dominance, eighty percent showed no preference; 8% had a tendency to alternate; 2% had a tendency to alternate but recovered quickly; 2% had a tendency to suppress one eye.

Phorias were normal in 55% of the cases, of the remaining 45% with abnormal phorias, half of them had exophoria at the reading distance.

Weak duction reserve, coincident with convergent insufficiency or accompanying accommodative or convergent spasm was present in many patients which caused undue fatigue. This may be evidenced by some general physical or emotional disturbance.

Dyslexia cases were inferior in their ocular function to that of the "norms," where rate of reading, number of fixations, regressions and span of recognition were considered.

Mirror reading, substitutions, or reversals are apparently self imposed psychological processes, maybe accidental at first, but with definite significance when analyzed in relation to the aspiration and motives of the child. He uses this as a means of getting attention, or an escape, by having other people believe he has a rare malady so therefore he is not supposed to learn to read. We found no cases of typical mirror reading.

Treatment.—The treatment depends on the diagnosis and the ingenuity of the people who are identified with the case, for there are no two cases identical, therefore, stereotyped methods are impractical.

In summarizing the observations made in this paper, it is pertinent to give as a resume the following truism: after the major difficulties that prevent proper reading are corrected and the hygiene of the body and mind as a whole is brought about, then and then only may one feel that the first prerequisites have been fulfilled for specifically attacking reading difficulty. The final goal is to get the child to read for himself for pleasure.

CONCLUSIONS

1. Dyslexia is a syndrome characterized by an inability to learn to read even though the individual's intelligence may be normal or superior.

2. The abnormal factors which interfere with learning to read are *functional,* observable, preventable and correctable, in contradistinction to alexia.

3. The incidence of dyslexia is sufficiently high to require for the correction, attention by all branches of medicine in cooperation with the other sciences.

*Park, George E.: "Reading Difficulty (Dyslexia) From the Ophthalmic Point of View," Amer. J. of Ophth., Jan., '48 Vol. 31, No. 1, 28-34.

4. The correction of this condition can be best attained after a complete examination, and appraisal of the child and his problem from every viewpoint, including physical, emotional, and pedagogic.

5. Presented are certain broad aspects of the problem of dyslexia: the influence of some psychophysiologic elements involved in reading difficulties, and discussed are predominant physical findings in 215 cases of dyslexia under treatment.

6. Anything, whether normal or abnormal which influences the child's life, affects his learning capacity, depending upon his ability to adjust himself properly to the psychophysiologic needs or stimuli which are imposed upon him. The degree of this homeostatic stability and adaption depends on the degree of normality of the divers functions that are involved in the reading processes.

7. The results and conclusions are made with the preface that all data presented upon the prominent physical conditions found in this study must be evaluated in their entirety in relationship to the personality and emotional adjustments of the patient.

8. Disturbed nutrition was present in many cases, as evidenced by the general appearance of the patient; overweight, underweight, and especially by cervical adenopathy.

9. Endocrine imbalances which presented symptoms to require therapy, especially hypothyroidism, was present in 31% of the patients.

10. Nerve reactions to stimuli were altered in 26% of the cases; 15% had sluggish reflexes, while 11% had exaggerated reflexes.

11. A compulsive type of personality was present, almost invariably, coincidental with enuresis which occurred in 18% of the children.

12. Nasal obstructions were present, 10% due to allergy, sufficiently to cause some degree of anoxemia and disturbance of sleep thus preventing the patient from getting proper rest and relaxation.

13. Several other symptoms are mentioned and their relative incidence recorded.

14. The loss of hearing of 20 decibals, or more, in all or certain frequencies only, was found in 23% of the series.

15. A good percentage had faulty vocalization, seemingly due to emotional instability. Nine percent of our series were late in learning to talk.

16. Glasses were fitted for nineteen percent of the children. Glasses should not be prescribed empirically to help children with their reading.

17. Ocular dominance, eyedness, handedness seem to have no significant correlation to dyslexia.

18. Exophoria, for near, was present in one of every four patients.

19. Dyslexia cases were inferior in their ocular function to that of the "norms", where span of recognition, number of fixations, rate of reading and number of regressions are considered.

20. Mirror reading is apparently a self-imposed psychological process with definite significance when analyzed in relation to the motives of the child. Maybe he uses this as an escape or to get attention.

21. The treatment depends upon the diagnosis and the ingenuity of the people who are identified with the case, for there are no two cases identical. Therefore, stereotyped methods are impractical.

DISCUSSION

Frank M. Lorimer, M.D. (Elmhurst)—It has already been mentioned that 18% of our patients have a history of enuresis. When we consider that emotional factors are implicated as the outstanding cause of enuresis, and when we consider that emotional factors are related to the stability or instability of parental figures and home environment, it is felt that erroneous statistics are obtained when taken from situations other than the traditional home environment. The children that we see at our clinic are all out-patients and come from traditional American home environment of varying degrees of intactness. Considering such factors, it is our impression that we see a high incidence of enuresis among children with reading disability.

To clarify a point that might arise, it should be stated that enuresis is not felt to be a symptom of reading difficulty nor is reading difficulty secondary to enuresis. In many instances they are both symptoms of an emotional conflict which involves interpersonal relations with the parents and siblings. Schroeder and Perkins have stated that the child is unconsciously reacting to overstrictness, too much interference of inconsistent firmness in the family situation. In a way, enuresis is a method of showing independence and defiance for such restrictions. However, the age group in which enuresis is most commonly found is that of children under 12 years of age. When we consider the fact that a feeling of security in a dependent situation and assurance of parental affection are necessary to a child

of that age group, we see that an emotional conflict arises.

A fear of loss of parent or parental love develops in the child when it fails to measure up to the parent's expectations. That fear is often reflected in over-compensation to be a "good" child and please its parents while awake. However, when the child goes to sleep, confused feelings are released in night terrors, bad dreams and enuresis. Some have said that enuresis is an unconscious release of pent-up or repressed hostility of the day.

It has been interesting to observe the correlation between the problem of enuresis and the neuropathic features of nail biting, thumb sucking, feeding difficulties, and temper tantrums. Personality features are that the patient is inhibited, sensitive, timid, worrisome, fearful of loss of parental affection, and striving to please. Environmental factors of over-demanding, critical, perfectionistic parents might be responsible. The presence of a proficient sibling who receives recognition for their productions to the embarrassment and frustration of the patient might also be a factor of importance. A broken home in which the security of the child is threatened is also to be considered. One boy that we examined about this time last year desired as his Christmas present to be rid of enuresis. It was a very embarrassing thing which caused him much worry only to aggravate the problem. It was found that the patient had been placed in a foster home earlier in his life and that his chief worry was that he would again be separated from Mother. Consequently the boy was trying excessively to please his mother. Recognition of the problem and reassurance assisted in making possible the boy's Christmas wish.

The therapy of enuresis should be directed at correction of any factor felt to be responsible whether it be physical, environmental or emotional. Often when the child is brought to the doctor many commendable methods have been attempted with varying degrees of success. It then becomes necessary to consider the emotional factors. Often times the insecurity of the child in a broken home is quite evident but difficult to correct. Other times, it requires considerable probing to determine the pressure exerted on the child. Each case requires individual attention. As Kanner states, "It is necessary to realize that a living person is attached to the urinating bladder." The parents can then be appraised of the doctor's opinion as to the emotional pressure and encouraged to modify their actions and demands upon the child. In general the problem of enuresis should be relieved of any feeling of shame, guilt or hopelessness that might have been developed by punishments, scolding or bribing. When enuresis is accompanied by other symptoms of personality disturbance, as is usually the case, it is well to look for excessive goals and standards, undue amount of criticism, or unfavorable competition. These can be treated by reassurance of affection regardless of achievement, praise for success, and removal of unhealthy competition. Often times it is necessary to treat the parents, showing them that this condition is not so terrible or shameful. In so doing, the tension in the home is relieved and the emotional security of the child is reestablished.

TAX GUIDES AVAILABLE

The "Schering Physicians' Income Tax Guide for 1950" is a new and up-to-the-minute edition of the popular compilation of information on how to prepare the doctor's income tax declaration and return. It is now being distributed free on request to the Medical Service Department of Schering Corporation, Bloomfield, New Jersey. Designed to meet the need of busy practitioners, every possible situation in the proper completion of income tax returns is covered clearly and concisely. It provides authoritative answers for everything from general tax return procedure to such problems as bad debts or the deductibility of reading matter for the physician's waiting room.

Prepared especially for physicians by tax experts Hugh J. Campbell and James B. Lieberman, the "Schering Physicians' Income Tax Guide for 1950" includes examples of filled-in tax returns, accompanied by lists of permissible deductions. The "Guides" are also being presented to physicians by Schering Professional Service Representatives, as a further service to the medical profession.

CASE REPORTS

Obesity

Diagnostic, Therapeutic, and Nursing Difficulties.

Warren B. Smith,
Danville

One Sunday afternoon I was called for an unspecified emergency case on the medical service of Saint Elizabeth's Hospital. Two hospital beds had been tied together with rope and there, twisting and turning and throwing himself about was a huge adult male, weighing 650 pounds. "The Fat Man" at a carnival side show had collapsed.

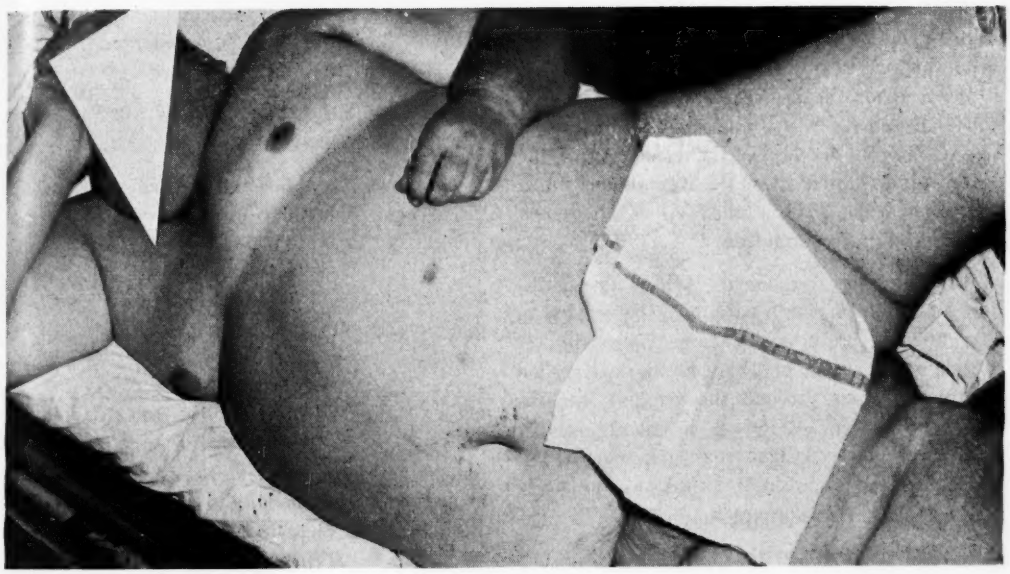
At the carnival grounds the patient had been loaded on a truck as it would have been utterly impossible to get this man into an ambulance. The sister in charge of the floor stated that twenty carnival employees were required to move him from the truck into the beds.

The patient was in coma, very restless, and there was danger that the beds would not stand the strain or that he might fall to the floor and be injured. Inquiry was made of his manager as to what kind of bed was used by this man and it was learned that he had a reinforced spring with a heavy lumber frame constructed just off the floor. This was sent for at once and proved most satisfactory.

History:—The history could not be obtained from the patient. His manager said that he had been coughing and spitting for the past few days, and he was unable to eat. He was short of breath and complained of dizziness and weakness on the slightest exertion. Shortly before admission he had fallen to the floor and was unable to get up or speak.

Physical Examination:—The patient was six feet four inches tall and extremely obese. The skin was cyanotic, cold and drenched with sweat. Respirations were rapid, shallow, noisy and associated with an almost constant productive cough. The radial pulse could not be counted and there was great irregularity in rhythm and force. The blood pressure was not determined because the arm was too large and a larger cuff was not immediately available. The ears, eyes

From the Medical Service of St. Elizabeth's Hospital, Danville, Illinois.



and nose were not remarkable. The throat was diffusely red and edematous, the tongue dry and heavily coated. The neck was twenty-eight inches in circumference but no pathology was discernible. The chest was massive, 70 inches in circumference at the nipple line. The breasts were large. Very distant, finely crepitant rales were heard in many locations over both lungs. There were also areas of absent breath sounds and it was not known whether or not these areas were due to consolidation or to the inability to hear through the rolls of excessive fat. Percussion of the chest and cardiac area was impossible. X-ray or fluoroscopic study was completely out of the question. At intervals the heart sounds were audible but they were not remarkable from the standpoint of valvular pathology. The cardiac rhythm was characteristic of auricular fibrillation.

The abdomen measured eighty inches in circumference. There were many large rolls of fat through which nothing could be heard or felt. The genitals could not be seen except when the many rolls of fat were separated; when exposed they appeared very small. The thighs were very large, measuring thirty-four inches in circumference at the mid portion. The arms and forearms also were large, the hands quite small, the fingers long and tapering. There was a marked chronic lymphedema of both legs. The circumference of the right calf at the largest point was forty-four inches, of the left calf twenty-two inches. Above the right ankle was a dirty gauze dressing which on removal revealed a large ulcerating area teeming with innumerable maggots. The left ankle measured sixteen inches and the right twenty-two inches. The left foot was twelve inches in length; the right thirteen inches. There was an infection of the right great toe. There was a diarrhea with a very offensive odor.

Tentative Diagnosis:—Probable pneumonia, type undetermined; acute tracheo-bronchitis; cardiac decompensation with auricular fibrillation; lymphedema of both lower extremities, more marked on the right side; chronic ulcer right lower leg heavily infested with maggots; infection right great toe; obesity weight 650 pounds.

Treatment:—The nursing care of this medical emergency was the first consideration. The sister in charge of the floor assigned two nurses to be with this patient constantly. If the huge right leg and foot slipped off the bed, all of the strength of the nurses was required to lift it back onto the bed. Because of the constant productive cough, attention was necessary to keep the patient and bed clean. The most difficult part from the nursing standpoint was the frequent, involuntary, foul, watery stool.

How should this patient be treated? He was unconscious and medication by mouth was not

advisable. No veins could be found in the masses of fat, except a single vein on the outer side of the right arm near the elbow joint. With constriction about the arm this vein could be felt, not seen, and its course made out for one inch. In order to relieve others of the responsibility, the doctor administered all of the intravenous fluids and medication and obtained all of the blood for laboratory investigation.

Penicillin was indicated. What should the dose be for a 650 pound patient? We decided to give 100,000 units every three hours in the muscle and a spinal puncture needle was needed in order to pass through the fat and into the muscle. Oxygen was given by nasal catheter and mask but the patient would not tolerate this procedure and removed it as fast as the nurse could replace the equipment.

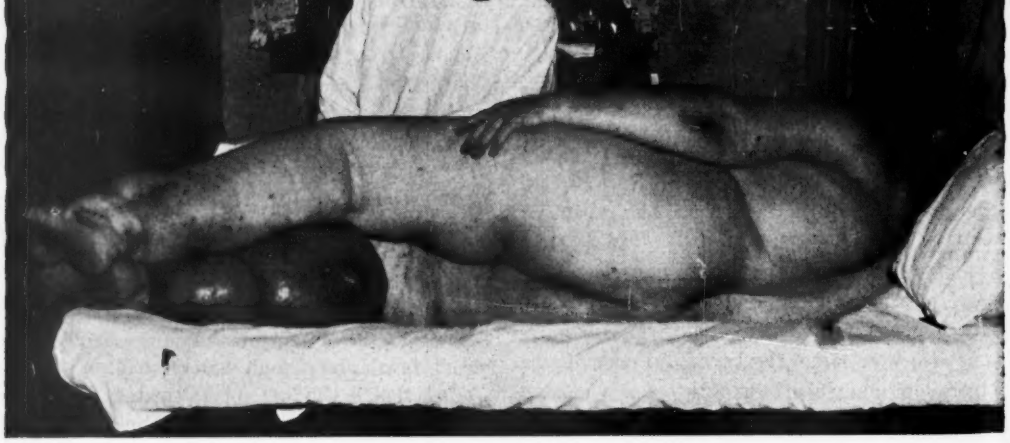
It was reported that the patient had been taking digitalis, but no one knew how much or what preparation. As the fibrillation was marked and the heart was failing, crystodigin (Lilly) was decided upon, given intravenously, as the patient choked when given with a little water by mouth. The dose was not known for a 650 pound man, so 0.8 mg. was given every four hours and the condition of the patient evaluated by the physician before each dose.

Fluids were given by vein: 1000cc of 5% glucose in water three times in twenty-four hours. The ulcer of the leg was irrigated with Dakin's solution, dusted with sulfa powder and covered with a sterile dressing.

The patient became more quiet after the fluid was administered and appeared to rest.

The laboratory findings on admission were interesting. The red cell count was 4.6; hemoglobin 11.9 gms (77%), white cells 15,505, color index .83. Neutrophiles 94%, lymphocytes 4%, monocytes 2%, stab cells 22% and segmented cells 72%. The urine was acid with a specific gravity of 1.017, 3 plus albumin, no sugar. Hyaline and granular casts were present with a solid field of red cells. Blood sugar was 100 mg. per cent. The urine and blood sugar determinations were made before the glucose administration was made, and as both were within normal limits diabetes could be ruled out completely.

On the second hospital day the red count and the hemoglobin were unchanged but the total leucocyte count was 22,050 cells, and the neutrophils were 96% with 23% stab cells and 70% segmented. The urine contained albumin and a few casts but the solid field of red cells had been reduced to 80-90 cells and 18-20 pus cells were reported. Blood chemistry at this time showed N.P.N. 115 mgm., chlorides 445 mgm., and creatinine 6.65 mgm., respectively, per 100 cc. of blood. However since this was the only ex-



perience with an acutely ill 650-pound patient, the normal values for these procedures were not known. Every available source of information on this subject was investigated without success.

The patient showed considerable improvement at this time. There were periods of mental clearness with accurate conversation. He was oriented as to his name, his employer, age and many other common questions. He was able to take liquids and medication by mouth and would respond with complete cooperation when awakened.

In time the apex rate became normal and the radial pulse full and regular. With the change from fibrillation to normal sinus rhythm intravenous crystodigin was stopped and the preparation was given by mouth, 0.2 mg. morning and evening as a maintenance dose. The penicillin was continued unchanged.

On the fourth hospital day the total leucocyte count had fallen to 10,500 cells with 85% neutrophils, 15% stab and 65% segmented cells. The N.P.N. was 110 mgm., and creatinine 4.3 mgm., respectively for each 100 cc. of blood. The diarrhea was controlled and the patient was improved.

On the fourteenth hospital day the urine was neutral in reaction; specific gravity 1.008, no albumin, sugar or casts. Red blood cells disappeared and only 10-12 white cells remained. The hemoglobin dropped to 10 gms. and the red count to 3.7 with 13,200 total white cells. There were 13% stab and 73% segmented cells. The fasting blood sugar was 89 mgm., N. P. N. 65 mgm., creatinine 2.6 mgm., respectively per 100 cc. of blood.

At this time the patient demanded enormous amounts of food. Breakfast consisted of a quart of oatmeal, a loaf of bread, two quarts of half milk and coffee, a pound of bacon and a pound of fried potatoes. Within three hours after eating all this food he demanded additional feedings.

The patient became more difficult to manage and if denied anything, made so much noise that near by patients became upset and nervous. He was now up and about but confined in his room only because he had lost his glasses upon entering the hospital and could not see without them.

The situation became so acute that arrangements were made with the police to keep the man in the local jail while transportation was arranged. Because of his size it was necessary to obtain permission for him to ride in the baggage car as the coach seats were too small.

CONCLUSION

A case of a man weighing 650 pounds, acutely ill and in coma is reported to show the diagnostic, therapeutic and nursing difficulties encountered.

A report of a similar case could not be found, in a review of the literature dealing with obesity.

Thoracopagus: Vaginal Delivery Without Destructive Operation

Irving Siegel, B.S., M.D.
Chicago

Thoracopagus (double monster, junction at thorax) occurs approximately every 25,000 deliveries.[1] There is no record of this type of congenital deformity at Mount Sinai Hospital prior to this case. Delivery from below, without destructive operation on the conceptus, has rarely been reported[2] — and only in premature or priviable fetuses.

This case report deals with the vaginal delivery of a thoracopagus of 28 weeks gestation, and the criteria for the diagnosis before delivery.

The mother was a colored secundigravida, 22 years of age, of slight build, weighing only 94 lbs. when first seen in the prenatal clinic on February 1, 1949. Her L. M. P. occurred November 20, 1948, and her term date was August 27, 1949. The past medical, surgical, and family history were essentially negative. She had given birth to a premature baby in July, 1948, weighing 3 lbs. 11 oz. Examination of the mother at the first prenatal visit revealed no gross abnormalities. The uterus was enlarged proportionately for the duration of amenorrhea — 12 weeks. Pelvic measurements were normal; Kahn test was negative; Rh positive. The patient had a moderate anemia for which ferrous sulphate was prescribed.

The patient made three more visits to the clinic and on the last examination, May 14, 1949, it was noted that the fundus uteri was almost the size of a term pregnancy. From the menstrual date the pregnancy was only 25 weeks in duration. A moderate hydramnios made auscultation and palpation difficult. Diagnosis of the presentation and position was inconclusive and therefore x-ray films were made in the AP and lateral positions. Only the lateral film (Figure 1) is reproduced here because details on the AP film are obscured by the mother's spine. It was noted that the fetuses lay close together, the heads at the same level, breeches presenting. In the AP view, the heads were on the same level — about 2.5 cm. apart, and the proximity of the thoraces was obscured by the maternal spine. The x-ray diagnosis was twins, both presenting by breech, about 28 weeks gestation.

It was suspected that the fetuses might be joined because of the symmetrical position, and

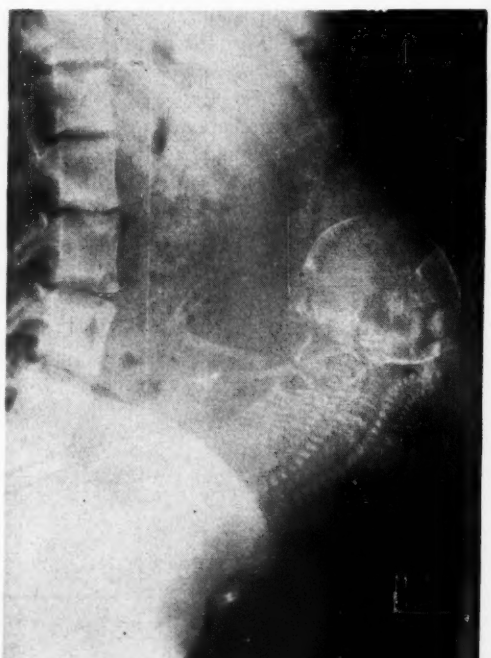


Figure 1

From the Department of Obstetrics and Gynecology of The Chicago Medical School and Mount Sinai Hospital of Chicago.

Read before the Chicago Gynecological Society, Oct. 21, 1949.

it was decided to re-x-ray the abdomen the following week. However, before the x-ray could be repeated, the patient was admitted to the hospital on Dr. A. Klawans' service with a history of premature rupture of the membranes, followed in one hour by moderate vaginal bleeding. Pains began two hours later.

On admission, the patient was having 5 minute pains. Examination revealed fundus uteri at the height of 30 weeks gestation. Fetal heart tones were audible on the left side only. There was moderate vaginal bleeding. Preparations were made for blood transfusion and a double set-up for vaginal examination to rule out placenta previa; but before the examination could be done, the pains became very strong and three hours after admission, the presenting part was visible.

The patient was moved into the delivery room where a vaginal examination revealed the vagina filled with an amazing conglomeration of heads, feet, and buttocks. Cyclopropane was administered to the patient, an episcotomy was performed, and trial traction was made on two feet which seemed to be a pair. As traction was continued, another pair of legs started to descend. An attempt was made to push up the second pair of legs while exerting traction on the first pair, but this failed. As traction was continued, a stage was reached where four legs and thighs were protruding symmetrically from the vagina in the AP position, facing each other. A moment later, both pelves of the premature infants slipped out of the vagina and then it was observed that the fetuses were joined ventrally from the level of the navel upwards. The one umbilical cord had a deep longitudinal groove and was not pulsating. Embryotomy was considered, but further trial traction delivered the shoulders and both heads almost in one movement. The placenta was delivered three minutes later by early expression, and a bleeding laceration of the cervix, 2 cm. in length, was sutured. The episiotomy was repaired, 500 cc. of blood was administered and the mother left the delivery room in good condition. The patient was discharged from the hospital on the sixth post partum day.

The fetuses were stillborn (Figure 2). X-ray of the double monster after delivery is shown in Figure 3. The report of the pathologist was as follows:

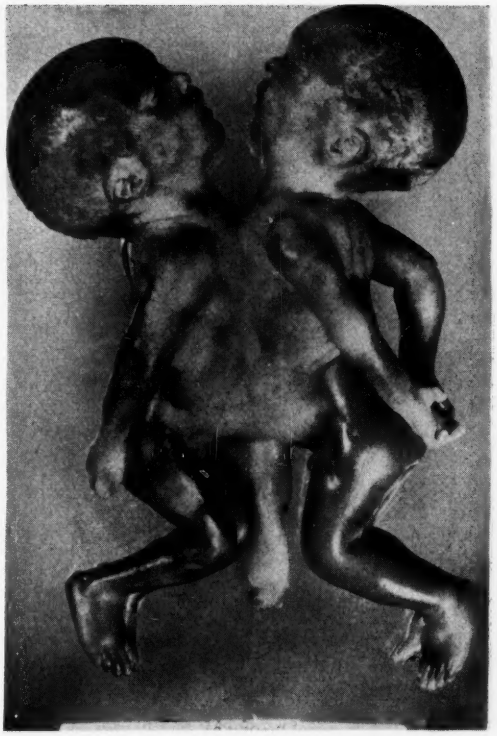


Figure 2

"The body was that of a premature male Siamese twin attached by the left anterior aspect of the chest and upper abdomen. Each one measured 19 cm. (crown — rump) and 31 cm. (crown — heel). The skin was reddish-pink and showed first degree maceration in some areas. The umbilical cord was single and was attached to the junction of the upper abdomen of the babies.

"*Internal examination* (Figure 4): On opening the abdomen it was found that the babies had a common liver presenting a bizarre shape; on the middle of the anterior aspect of the liver there was an attached fibrous band resembling the anterior falciform ligament. A similar band was noted on the posterior aspect of the organ. The liver presented two porta hepatis. The gastro-intestinal tract and the urogenital tract of the babies were well separated and showed no congenital abnormalities, except that one baby had a congenital undescended left testicle; the testicle was in the inguinal canal.

"The pleural cavities of each baby were free but there was a single pericardial sac containing two hearts. The hearts have been saved for

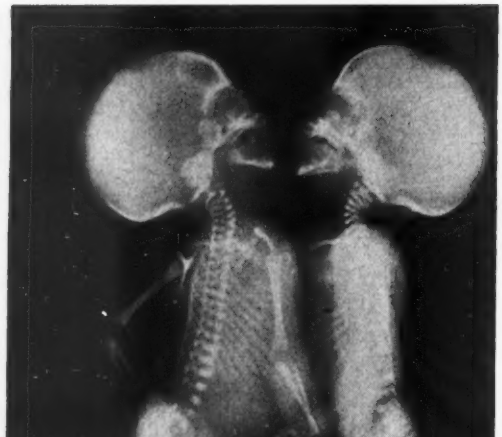


Figure 3

further studies by the pathology department." The cardiac anomaly will be the basis for a separate report.

The placenta consisted of two fused sections. The cord bifurcated at its insertion, three vessels going to each half of the placenta. On the maternal surface near the periphery was a firmly attached old blood clot about 6 cm. in diameter.

SUMMARY

A case of thoracopagus is described with delivery from below, without destructive operation. The fetuses were previable. X-ray rarely reveals soft tissue union of double monster, but the diagnosis of thoracopagus in utero can be made with reasonable certainty by x-ray if the following criteria are present:

(a) The twins face each other.

(b) The poles of the fetuses are at the same level.

(c) The thoraces of the fetuses are in proximity.

(d) Repeat films taken several weeks later reveal no change in the attitude of the fetuses toward each other.

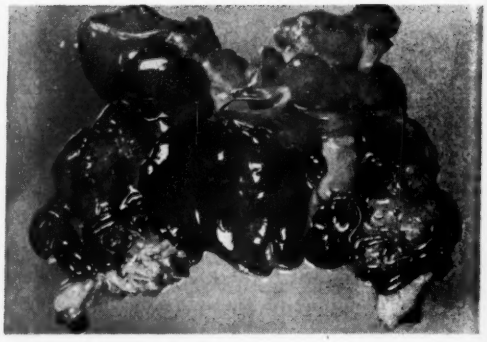


Figure 4. Single pericardial sac and common liver.

I wish to express my appreciation for the assistance of Dr. Julian Arendt, Head of the Department of Roentgenology of Mount Sinai Hospital, and of Dr. E. P. Leroy, Assistant Pathologist of Mount Sinai Hospital.

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Bullous Emphysema and Asthma

Milton M. Mosko, M.D., and John O. Baugher, M.D.
Chicago

Our experience indicates that some degree of emphysema is an inevitable result in patients with chronic perennial asthma. This is particularly true of those cases in which there is associated infection with chronic bronchitis.

The majority have emphysema of the vesicular or parenchymal type. For these, therapy is generally unsatisfactory, and essentially is directed towards symptomatic relief of asthma, specific treatment of the infectious element, and those measures that increase the vital capacity of the lungs.

In a small percentage of cases the emphysema is in the nature of bullous lesions. The bullae or blebs show a tendency towards progression in size and extent, and eventually produce a severe disabling dyspnea by reducing the negative intrapleural pressure, and by displacement and compression of the adjacent lung.[1,2] Bullae and emphysematous blebs are essentially the same lesion, differing mainly in respect to their location; the bullae being intrapulmonary, and the blebs intrapleural. The term bullous emphysema applies equally well to both .[3]

The following case report is of a patient with chronic perennial asthma associated with infection, complicated by bullous and vesicular emphysema.

W. R., a 34 year old colored male, was readmitted to the hospital November 23, 1947, complaining of fever (102°), productive cough, and severe dyspnea of three days duration. He expired 60 hours later.

History and service records revealed that he was in good health at the time of entry into the Army in 1939. In the latter part of 1942 he developed mild dyspnea on exertion. His weight was 165 pounds. He developed at this time a pneumonitis of one week's duration. Dyspnea on exertion persisted until October 1943 when he again developed pneumonitis. His overseas service in England and Africa entailed exposure to cold and damp weather, and he was almost continuously ill for four months with paroxysmal attacks of wheezing, productive cough, repeated febrile episodes and severe dyspnea. He was given a medical discharge in May 1944 for asthma and emphysema, and was told that his right lung contained several large air sacs. He was then able to work for the next year and a half as a bus driver.

In December 1945 he was first admitted to the V. A. Hospital at Hines, Illinois with fever (102°), dyspnea, wheezing and chest pains. His weight was now 145 pounds. Chest x-rays revealed increased markings at both bases and numerous bullae in the right upper lung. Treatment with penicillin and oxygen afforded relief but the dyspnea and wheezing persisted. After discharge he was able to work again until readmission in November 1946. At this time his temperature was 103°, and he had severe chest pain, cough, dyspnea and wheezing. Treatment with penicillin, aminophyllin, ephedrine and epinephrine afforded almost complete relief. The

Figure 1. Bilateral bullous emphysema

From the Medical Service, Veteran's Administration Hospital, Hines, Illinois, and (M.M.M.) Dept. of Medicine and the Allergy Unit, the University of Illinois College of Medicine, Chicago, Ill.

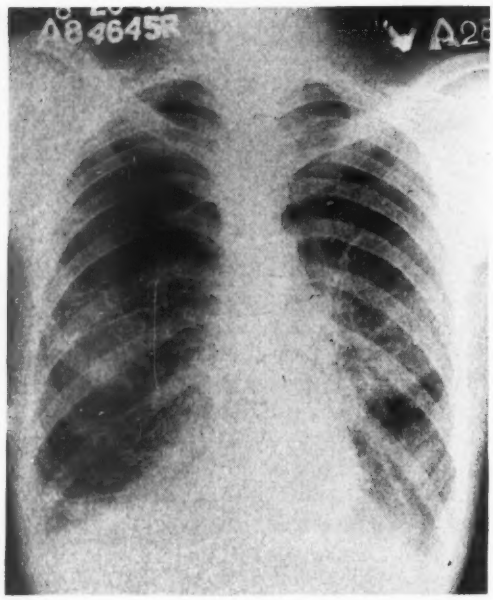

Figure 2. Bullous emphysema and pneumonitis

white blood count was 26,000. X-rays revealed an irregular infiltrate in the left base and bullous emphysema. EKG suggested early right ventricular strain. After three weeks hospitalization he was well enough to be discharged, but two weeks later he was again readmitted with a bilateral pneumonitis and similar symptoms as in the past. During the next four months of hospitalization he had two episodes of pneumonitis. His weight dropped to 125 pounds. Vital capacity averaged 1.8 liters. The white blood count was 13,500 with 12% eosinophils. Sputum cultures revealed mixed respiratory organisms. Skin testing revealed slight reactions for varied foods and were completely negative for all inhalants. Elimination diets failed to correlate these skin reactions with his symptoms. The drugs of choice were found to be aminophyllin and aerosol penicillin. In August 1947 he was readmitted for the fourth time with fever, cough, dyspnea and typical findings of pneumonitis in the right lung, plus an obvious increase in the amount of bullous emphysema, and he was discharged three weeks later after treatment as in previous episodes. He was able to return to work and was receiving out patient treatment for his asthma. His vital capacity at this time was 1.2 liters, and his weight was 120 pounds.

Three days later before his final admission he developed fever, chilliness, productive cough and severe dyspnea. His entry into the hospital was delayed by relatives who practiced Christian Science. On admission his temperature was 102°. Physical examination revealed an extremely ill, poorly nourished colored male, very apprehensive and gasping for breath. Breath sounds were absent over the right upper lung, and numerous coarse and dry rales were heard in the remaining portions. Expiration was prolonged. Respiratory and pulse rates were increased to 28 and 130 respectively. Accessory respiratory muscles were in full use, and the chest was hyper-expanded and resonant. X-rays revealed marked bullous emphysema, particularly on the right, and bilateral pneumonitis. The white blood count was 12,000 and the EKG showed right heart strain. All measures of treatment were of no avail, death occurring 60 hours later from respiratory failure.

Autopsy Findings. On opening the chest the lungs were seen to balloon out and overlap in the midline. Grossly they were pale, having the appearance of a cluster of grapes. Together they weighed 2000 gms. On the surface of the right lung were several large emphysematous blebs, varying in size, the largest measuring five cms. The pleurae over both posterior surfaces was shaggy and rough. The inferior and posterior portions of both lungs were heavy and congested. Cut sections showed areas of bronchopneumonia in both lower lobes with purulent secretion coming from the small bronchiolar orifices. No bronchiectatic areas were demonstrable. Cut sections of the right upper lung showed blebs, bullae, emphysema, and atelectatic areas. Histologically, the lungs showed much fibrosis and areas of round cell infiltration around the bronchi. There were many areas that were diffusely filled with leukocytes, mainly polymorphs. There was a small amount of anthracosis present and numerous "heart failure" cells. Many of the blood vessels were distended with red cells. In some of the sections the alveoli were markedly dilated and their walls broken. In the lower lobes, some of the alveoli were collapsed. The heart was grossly and microscopically normal except for some right ventricular hypertrophy. The epithelium of many of the bronchi was denuded and the lining of some of the alveoli showed a

transition to cuboidal epithelium. The liver, spleen and kidneys showed chronic passive congestion.

DISCUSSION

For this condition of bullous emphysema, as exemplified by the preceding case report, we have advocated an operative procedure which has afforded a great measure of relief. This is the so-called "Monaldi" type operation of intracavitary suction[4]. It induces a sterile pleuritis in the region of the affected area followed at a later stage by the continuous gradual suction decompression of the contained air within the bleb, thus relieving pressure, and inducing reexpansion of the lung with a corresponding increase of vital capacity. We have seen patients with even more extensive pathology than in the preceding cases described, markedly benefited. We feel that this patient could have been similarly benefited had we recommended surgery more vigorously. His dyspnea would have been immeasurably aided and conceivably his resistance to respiratory infections increased. The purpose of this case presentation, therefore, is to direct attention to those cases of advanced bullous emphysema accompanied by asthma for whom relief may be obtained by surgical decompression in addition to medical management.

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THE PHYSICIAN AND THE MAN

We question that any profession, or any group with common interests in the country, acts with more fairness and with less emotional display towards one of its members with whom it may be in disagreement than does the medical profession. Where many organizations will cast from their midst, or at the least exclude from any recognition by them, a member who takes a strong opposite view to the point of actively participating against the parent body, Medicine continues to practice the fine art of diagnosis, distinguishing between the skill of the physician and the frailties of the man that the latter may not be allowed to sway judgment on the former.

A case in point is that of our famed colleague, Dr. George Richard Minot of Boston. To the physician, Dr. Minot stands forth among the greatest, as one whose contributions to medical knowledge of the causes and methods of control of pernicious anemia have been recognized throughout the world.

Yet Doctor Minot, the man, is one of thirty-four physicians in the entire country who form an organization called the Committee of Physicians For the Improvement of Medical Care, Inc., whose opinions on medical-economic affairs and on medical legislation nationally run counter to the majority of us. Under such circumstances many groups would certainly penalize Dr. Minot whenever the opportunity presented itself, and most certainly he would not be the recipient of honors at the hands of those with whom he was in disagreement on any score.

Medicine, however, takes a different view. Thus we find the House of Delegates of the American Medical Association, in 1945, awarding the Association's distinguished service medal to Dr. Minot. And now comes word that the officers of the AMA section on experimental medicine and therapeutics has honored Doctor Minot again by asking that the Council on Scientific Assembly allow the creation of the Dr. George Richard Minot Lecture. This lecture would be given either at the 1950 or 1951 AMA session to honor an American investigator who has contributed in an exceptional manner to the development of clinical investigation and therapeutics.

Excerpt, Editorials, The Rhode Island Medical Journal, October, 1949.

NEWS OF THE STATE

COLES

Personal.—Dr. E. N. Zinschlag, Mattoon, has been awarded a fellowship in the American College of Surgeons.

COOK

Personal.—Dr. Samuel J. Taub recently returned from a trip to England, Switzerland, Italy and France. In Paris, Dr. Taub addressed the entire staff of the Policlinique Hospital des Enfants on "Allergic Manifestations of the Eye and Surrounding Structures" and "Superficial Punctate Keratitis with an Allergic Etiology."

Society News.—Dr. James H. Hutton addressed the Business and Professional Women's Club in Chicago, November 21; on "The Role Business and Professional Women Can Play in the Health of the Community."—At a meeting of the Chicago Rheumatism Society, November 30, the speakers were Dr. Kate H. Kohn, Michael Reese Hospital, on "Oral Penicillin in the Prophylaxis of Rheumatic Fever" and Dr. Conrad L. Pirani, Medical Nutrition Laboratory, U. S. Army, who discussed "Scorbutic Arthropathy and the Role of Vitamin C in Connective Tissue." Dr. Edward F. Rosenberg is president of the society; Dr. Stanley Fahlstrom, secretary-treasurer.—Dr. Walter J. Reich discussed "The Management of Incontinence in Women" before the fourteenth annual assembly of the International College of Surgeons, in Atlantic City, November 8.—Dr. Philip Thorek addressed the Hudson County Medical Society in Jersey City, December 6, on "Carcinoma of the Esophagus."

Sidney Smith Goes to St. Louis.—Dr. Sidney Smith, known for his work on the Potts-Smith blue baby operation, has been appointed assistant professor of surgery at St. Louis University School of Medicine, St. Louis, effective November 15. Dr. Smith will be surgeon in charge of the care for congenital defects of children and will also serve as chief of experimental surgery.

Dr. Youmans Leaves Illinois.—Chancellor Bennett Harvie Branscomb, Vanderbilt University, Nashville, Tenn., recently announced that Dr. John B. Youmans, University of Illinois, has accepted the deanship of medicine at Vanderbilt, effective March 1, 1950. Dr. Youmans will succeed Dean Ernest Goodpasture at Vanderbilt. Dr. Youmans is dean of the University of Illinois College of Medicine. He also has served as medical director of the University of Illinois Research and Educational Hospitals and the Illinois Eye and Ear Infirmary.

Appointments to Commission for Handicapped.—Dr. Edward L. Compere, Chicago orthopedic surgeon, was appointed a member of the Illinois Commission for Handicapped Children by Governor Adlai E. Stevenson. Dr. Compere is now chairman of the Department of Orthopedic Surgery of Wesley Memorial Hospital, consulting orthopedic surgeon for Chicago Memorial Hospital and for the Children's Memorial Hospital, and associate professor of surgery in the Northwestern University Medical School. The Commission for Handicapped Children acts as the state-wide coordinating, stimulating and promotional agency in the care, education and training of children. Members serve without pay and sit as a general policy determining body.

The Gehrmann Lectures.—Dr. Wesley W. Spink, University of Minnesota School of Medicine, Min-

neapolis, gave the Gehrmann Lectures at the University of Illinois College of Medicine November-December 1. His subjects were "Epidemiology and Pathogenesis of Brucellosis" and "Diagnosis, Treatment and Prevention of Human Brucellosis."

Memorial Lecture Features Fraternity Anniversary.—Eta chapter of Alpha Kappa Kappa, international medical fraternity, observed its fiftieth anniversary on the campus of the University of Illinois with a program of lectures and activities, December 2-3. The program featured the fourth annual Henry E. Irish Memorial Lecture. Dr. David J. Davis, dean emeritus, University of Illinois College of Medicine, discussed "Fifty Years of Medicine in Chicago." The lectureship honors the late professor and head of the department of pediatrics at the University and charter member of Eta chapter. The lecture was followed by the annual Founders' Day dinner at the fraternity house, 812 South Ashland Blvd., Chicago.

Cancer Grant to Stritch.—A $200,000 grant to the Stritch School of Medicine of Loyola University by the National Cancer Institute will be used to construct cancer research facilities, the Very Rev. James T. Hussey, S. J., university president, announced November 16.

Dr. James J. Smith, dean of the medical school, said detailed plans on construction have not been completed. Research will be carried out by Loyola staff members particularly Dr. Hugh J. McDonald, chairman, department of biochemistry; Dr. Herbert E. Schmitz, chairman, department of obstetrics and gynecology; Dr. John F. Sheehan, chairman, department of pathology; Dr. Wayne B. Slaughter, professor of plastic surgery; and Dr. Cleveland J. White, chairman, department of dermatology and syphilology.

The new cancer unit will be constructed in conjunction with Loyola's proposed development in the west side medical center and will be operated in conjunction with the University Hospital, 432 South Wolcott Street, which in 1948 was reorganized as a teaching affiliate of the Stritch School.

Lecture Series on Behavior.—The Chicago Medical School is conducting the following lecture series on *"The Development of Behavior"* to be held on Wednesdays, 12:30 p.m.:

January 11—The Mechanism of Neural Growth. Dr. R. W. Sperry, assistant professor of anatomy, University of Chicago School of Medicine.

January 18—Intrauterine Development of Behavior. Dr. F. W. Becker, professor of anatomy, Jefferson Medical College, Philadelphia.

February 1—Post-partum Development of Behavior. Dr. A. H. Riesen, associate professor of psychology, University of Chicago School of Medicine.

February 8—The Genesis of Abnormal Behavior. Dr. H. H. Garner, professor and chairman of the department of neurology and psychiatry, the Chicago Medical School.

February 15—The Induction of the Individual into Society. Dr. Kimball Young, professor and chairman of the department of sociology, Northwestern University.

March 8—Crime in Society. Dr. Clifford R. Shaw, chairman of the department of sociology, Institute of Juvenile Research, State Dept. of Public Welfare; Administrative Director, Chicago Area Project.

Dr. Crowell Leaves College of Surgeons.—Dr. Bowman C. Crowell, 105 E. Delaware Place, Chicago, was guest of honor at a farewell dinner at the Drake Hotel, November 12, given by the staffs of the American College of Surgeons and Surgery, Gynecology and Obstetrics. Dr. Crowell, a noted pathologist, is retiring as associate director and director of clinical research of the College with which he has been connected since 1926. Dr. and Mrs. Crowell plan to spend the winter in Florida, going first to Nokomis.

Recently Dr. Crowell was awarded the American Cancer Society's first annual medal "in recognition of his outstanding contributions to the control of cancer." Dr. Crowell, who is a member of the board of directors of the society, received the award from Dr. C. C. Nesselrode of Kansas City, retiring president, at the annual dinner meeting, October 28, in New York City.

On October 15, an honorary degree of Doctor of Science was conferred upon Dr. Crowell by Marietta College, Marietta, Ohio.

News from Hektoen Institute.—At the annual meeting of the board of directors of the Hektoen Institute for Medical Research of the Cook County Hospital, December 5, Dr. Morris T. Friedell, research associate, was appointed chief of the radioactive isotopes laboratory, and Dr. I. F. Stein Jr., was named research associate of the institute. Dr. Hans Popper, Scientific Director of the Hektoen Institute conducted a clinicopathologic conference and gave a lecture on "The Differential Diagnosis of Jaundice" at the Veterans Administration Hospital in Augusta, Ga.

Research Grants Awarded.—A grant in the amount of $26,396 has been awarded by the U. S. *Public Health Service upon recommendation of the* National Cancer Institute to Dr. I. Davidsohn for *cancer research at the Chicago Medical School for* the ensuing two academic years. The investigative *work will be done at the school and at the Mount* Sinai Medical Research Foundation and will deal with the factors influencing the susceptibility of certain strains of mice to cancer of the breast. A grant in the amount of $3,940.00 has been awarded to Dr. Piero P. Foa by the U. S. Public Health Service for the continuation of a research project in experimental diabetes, through investigation of the utilization of Vitamin B1 in diabetes. A grant of $500.00

from the Viobin Corporation, to be known as the Andrew C. Ivy Fellowship, has been awarded to Dr. Howard Sloan, Research Fellow in Physiology, for research studies on artificial kidney.

Varied Studies at Illinois.—Four grants in the total amount of $15,000 have been awarded to the University of Illinois College of Medicine in support of research investigations, Dr. A. C. Ivy has announced.

Studies in arteriosclerosis, or hardening of the arteries, by the department of pathology will be supported by a $10,000 grant from the Pauline E. Ruettinger Memorial Fund. The project will be undertaken by Dr. Maurice Lev, under the direction of Dr. G. A. Bennett.

Abbott Laboratories has made a $2,500 grant for a study of dietary therapy in liver disease to be conducted by the department of medicine. A second grant of $500 has been made by Abbott in support of studies in anesthesia.

Smith, Kline and French has awarded a $2,000 grant for the study of the effect of amines in experimental renal and other experimental hypertensions. The investigation will be undertaken by E. A. Ohler in the department of physiology, under the direction of Dr. G. E. Wakerlin.

Faculty Promotions.—Dr. Francis H. Straus has been promoted to the rank of clinical professor of surgery at the University of Illinois College of Medicine. A graduate of Harvard Medical College in 1919, Dr. Straus took his residency at Presbyterian Hospital and has had an active position on the surgical staff of the hospital since that time. Dr. Straus has held the rank of clinical associate professor of surgery since 1937. The promotion of Dr. W. J. Furuta to the rank of assistant professor of anatomy and Dr. Benjamin Pearlman to the rank of clinical assistant professor of medicine was also announced.

University News.—Dr. C. G. Baker, dean, School of Medicine, Guys Hospital, London, gave an assembly hour lecture at the University of Illinois November 25 on "Some Clinical Aspects of Cardiovascular Diseases."

Faculty News at University of Chicago.—Dr. John R. Lindsay, professor of otolaryngology, has been appointed a member of the Committee of Hearing of the National Research Council and has been awarded the Gold Key for service by the American Academy of Opthalmology and Otolaryngology.—During the period October 24 to November 18, 1949, several members of the department of medicine, Drs. Jeanne Ward, J. Thomas Grayston and William G. Bradenkipf, together with Laura Ydse, R.N. and Mary O'Neill, R.N., will undertake a field trip throughout southern and central Illinois for the purpose of testing student populations thus obtaining rates of histoplasmin sensitivity and pulmonary calcification. Skin tests will be made with both histoplasmin sensitivity and pulmonary calcification. Skin tests will be made with both histoplasmin and tuberculin and through the assistance of Dr. Clifton Hall, chief, division of tuberculosis control, department of public health, Springfield, chest microfilms will be taken on each project.—Dr. Joseph B. Kirsner, department of medicine, has been elected president of the American Gastroscopic Society.—Dr. Paul Weiss, professor of zoology, received the honorary degree of doctor of medicine, University of Frankfurt, August 27, 1949 and was elected vice president of the International Institute of Embryology recently.—The University of Chicago is conducting a series of postgraduate lectures and review courses for general practitioners. The South Side Regional Chapter of the American Academy of General Practice has more than seventy general practitioners enrolled.—Dr. Stephen Rothman, department of dermatology, recently spoke on "Recent Studies on the Chemical Composition of the Normal Human Skin Surface and Its Relation to Dermatological Problems" at the William A. Pusey Memorial Dinner of the Chicago Dermatological Society.—Dr. Leon O. Jacobson, associate professor of medicine and associate dean of the division of biological sciences, plans to attend the Sixth International Congress of Radiology in London next July. He will give a paper on "The Therapeutic Use of Radioactive Isotopes." Dr. Jacobson will also attend the meeting of the International Society of Hematology to be held in Cambridge, England, in August, 1950.—Dr. A. C. Bachmeyer, associate dean of the division of biological sciences, was designated president-elect of the American Association of Medical Colleges at the recent meeting at Colorado Springs. Dr. Bachmeyer has been selected by the Governor to serve as a member of the Governor's Commission on the Midcentury White House Conference. The suggestions and plans of this Commission will be forwarded to Washington to the Children's Bureau before the middle of 1950 and the Conference will be held in November or December, 1950.—Dr. Lester R. Dragstedt, chairman of the department of surgery, has been elected treasurer of the International Surgical Society.

Initiate New Course in Radiation Biology.—A new course for senior students in radiation biology has begun at the Chicago Medical School under the direction of Dr. A .R. Goldfarb, of the department of biochemistry. The course, a required one, has a three-fold purpose. First, it prepares the graduate with information concerning radio activity so that he will be of value in case of atomic attack. Secondly, he is being well-founded in new diagnostic and therapeutic methods which are now being developed, and which will be put to considerable use as a science develops. And last, the course has been designed so as to test out methods of teaching radia-

tion biology in a medical school. The students will participate in experimental laboratory work as soon as a radiation laboratory now being set up is completed, and will be given the opportunity to handle radioactive isotopes and accompanying equipment. The new laboratory will contain animal quarters, to keep experimental animals isolated from other animals at the school, and facilities for diluting strongly active materials so that they can be used as experimental material. Included in the project will be a series of research programs, two of which are now under way. One of these, to be under the direction of Dr. Richard G. Ronerts, head of the department of biochemistry, and Dr. Goldfarb, pertains to the use of radio-active hemin to aid in the localization of cancer tissue. The other, under the direction of Dr. A. A. Luisada, program director of cardiology, and Dr. Goldfarb, will study new methods of using radioactive salt for determining the rate of flow of blood through the heart and the type of flow, and simultaneously to record the electrical pulsations of heart muscle. This is expected to reveal information of importance in diseases of the heart.

DU PAGE

Library Named for Physician.—A surprise party was held for Dr. E. W. Marquardt, senior surgeon of Memorial Hospital, Elmhurst, recently, to make the dedication of the Marquardt Memorial Library which Dr. Marquardt gave to the hospital. He was presented with an embossed leather book of autographs.

KANKAKEE

Personal.—Dr. George Morrow, superintendent of the Kankakee State Hospital, became assistant superintendent of the Logansport (Ind.) State Mental Hospital, December 1. Dr. Morrow retired November 3 from Kankakee where he had been eleven years.

LA SALLE

Hospital Staff Chooses Officers.—Dr. Jerry DeVries, Ottawa, was named president of the medical staff of the Ryburn-King Hospital, November 10, to succeed Dr. Paul R. Clark, Marseilles. Dr. Elmer Maierhofer, Ottawa, was named vice president and Dr. G. Alan Neufeld, also of Ottawa, secretary. The executive committee members are Dr. L. W. Christian, Dr. M. H. Sawyer, Dr. F. P. Twohey, Dr. S. E. Parr and Dr. D. Raymund Dwyer, all of Ottawa.

LEE

Society Election.—Dr. J. L. Palumbo, Ashton, was chosen president of the Lee County Medical Society, November 10. Other officers are Dr. H. F. McCall, Dixon, vice president and Dr. T. J. Caldarola, Franklin Grove, secretary.

MACON

Fifty Years of Service.—The Macon County Medical Society gave a dinner for Dr. C. Martin Wood, October 18, to mark his completion of fifty years of service in the practice of medicine. He was also presented with the insignia representing his membership in the Fifty Year Club of the Illinois State Medical Society.

MC DONOUGH

Society Election.—Dr. R. G. Trummel, Bushnell, was elected president of the McDonough County Medical Society at a recent meeting. Other officers chosen were Dr. B. H. Borum, Blandinsville, first vice president; Dr. O. A. Dively, Macomb, second vice president; Dr. R. C. Benkendorf, Bushnell, secretary-treasurer; Dr. V. B. Adams, delegate to the Illinois State Medical Society, and Dr. R. C. Millet, alternate, both of Macomb. Dr. Carlo S. Scuderi, Chicago, addressed the society on "Common Fracture Problems in General Practice."

MORGAN

Society News.—Dr. W. C. Scrivner discussed *"Common Gynecological Conditions"* before the Morgan County Medical Society in Jacksonville, *November 10.*

PEORIA

Society News.—Dr. Lowell D. Snorf, Evanston, *discussed "Recent Advances in Gastroenterology"* before the Peoria Medical Society November 15.

New Head of Peoria State Hospital.—Dr. Walter H. Baer, Peoria, former superintendent of the Manteno State Hospital, has been named superintendent of the Peoria State Hospital, effective November 7. He succeeds Dr. Richard J. Graff who is being transferred to the superintendency of the Galesburg State Research Hospital.

POPE

Personal.—Dr. Preston E. Wright has been named medical director of the Quadri-County Health Department with headquarters in Golconda. He had previously served in a similar capacity in Ottawa County in Miami, Oklahoma.

ROCK ISLAND

Society News.—Dr. Fred Fitz, associate professor of medicine, Northwestern University Medical School, addressed the Rock Island County Medical Society, November 8, on "Bacterial Pneumonias."

SANGAMON

Tobert Hill Honored.—Dr. Tobert F. Hill, Athens, was recently chosen as Sangamon County's outstanding physician of the year. According to the Athens Free Press, Dr. Hill has four brothers who are physicians all of whom graduated at Rush Medical College. He has an uncle, Dr. Dan Hill,

who was mayor of Springfield in 1841 and who is credited with being the organizer of Springfield's first Board of Health. In addition to this relationship, Dr. Hill's son is a physician and is serving in the United States Medical Corp.

WINNEBAGO

Society News.—Catherine Curtis, president, Women Investors Research Institute, Washington, D. C., addressed the Winnebago County Medical Society in Rockford, November 18, on "The Washington Scene."

Heart Symposium.—The Winnebago County Medical Society and the Winnebago County Chapter of the Illinois Heart Association held a symposium on Heart Disease in Rockford, November 9. The following speakers appeared on the afternoon program with Dr. C. H. Boswell, Rockford, presiding: Dr. M. O. Alexander, Rockford, "A Review of the Sequence of Events in the Pathology of Myocardial Infarction"; Dr. C. N. Hamlin, Rockford, "The Treatment of Acute Myocardial Infarction"; Dr. Stanley Gibson, Chicago, "Physical Signs in Heart Disease in Children"; and Dr. Don C. Sutton, Chicago, "Angiocardiography in the Adult". Drs. Alexander, Hamlin, Gibson and Sutton and Dr. Robert E. Farrand, Boston, Mass., participated in a panel discussion. The evening speaker was Dr. Farrand who dicussed "A Survey of Current Cardiac Surgery." Dr. William K. Ford, president, Winnebago County Medical Society, presided at the evening program.

GENERAL

Southern Illinois Association Chooses Officers.—Dr. William Walton, Belleville, was elected president of the Southern Illinois Medical Association at the 75th annual convention held in Eldorado November 3. Dr. Robert V. Ferrell, Eldorado, is the retiring president. Other officers elected were: Dr. Kent E. Ellis, Murphysboro, first vice president; Dr. N. A. Thompson, Eldorado, second vice president; and Dr. Gilbert Edwards, Pinckneyville, secretary-treasurer. The association voted to hold its 76th annual convention at Belleville.

Dr. MacEachern Named Director of College of Surgeons.—Dr. Malcolm T. MacEachern of Chicago, associate director of the American College of Surgeons since 1923, has been appointed director effective since October 22 according to an announcement by Doctor Arthur W. Allen, Boston, Chairman, Board of Regents. Dr. MacEachern, chairman of the administrative board of the College since 1935, is also professor of Hospital Administration at Northwestern University, director of the program in Hospital Administration since 1943, and director of the Chicago Institute for Hospital Administrators of the American College of Hospital Administrators.

Dr. Malcolm T. MacEachern is the third director in the history of the American College of Surgeons, the first having been Dr. John G. Bowman from 1915 to 1920, who subsequently became chancellor of the University of Pittsburgh; then, Judge Harold M. Stephens who served as interim director from January to June, 1921, and is now Chief Justice, U. S. Court of Appeals for the District of Columbia.

Dr. Franklin H. Martin, founder of the American College of Surgeons, was director general from 1917 to his death in 1935.

Meeting of Pathologists.—The North Central Region of the College of American Pathologists met jointly with the Illinois Society of Pathologists, December 3, at Northwestern University Medical School to hear the following speakers: Charles Huggins, M.D., Anne Stack Cleveland, Donald Tapley and E. V. Jensen, Ph.D., all of Chicago, on "Advances in Serum Protein Techniques in the Diagnosis of Disease"; M. L. Littman, M.D., New Orleans, La., on "Pathologic Etiologic Diagnoses of Fungus Diseases"; M. G. Westmoreland, M.D., Chicago, "Suggested Contractual Relationships"; R. A. Willis, M.D., London, "Diagnostic Errors Caused by Metastatic Tumors"; and Maurice Lev, M.D., Chicago, on "Autopsy Diagnosis of Congenitally Malformed Hearts."

Health Department Activities.—The Illinois Health Messenger, published by the Illinois State Department of Public Health, announced the following changes in personnel: Dr. Norman J. Rose has been appointed assistant chief of the division of tuberculosis control. Dr. Lamar E. Alford, appointed health officer of the Alexander-Pulaski County Health Department, and Mr. E. L. Wittenborn has been named chief of the division of public health education. Mrs. Margaret B. Cowdin has been reappointed executive secretary of the Illinois Statewide Public Health Committee, a position she once held.—Dr. E. K. Musson has resigned as Peoria city health commissioner to become chief of the communicable disease section of the Chicago board of health.

MARRIAGES

Dr. Mark Pomaranc, Chicago, to Miss Ruth Reis, also of Chicago, recently.

DEATHS

Charles Edwin Bell, Belleville, who graduated at the University of Wisconsin Medical School, Madison, in 1934, died November 20, aged 41, of a heart attack. He was a member of the Radiological Society of North America, the American College of Radiology and he was chief of staff at the Christian Welfare Hospital, East St. Louis.

William H. Brummit, Chicago, who graduated at Meharry Medical College, Nashville, Tenn., in 1904, died September 7, aged 69, of acute coronary thrombosis.

WALLACE COX CONVERSE, retired, Chicago, who graduated at Harvey Medical College, Chicago, in 1896, died October 29, aged 80. He had practiced medicine in Chicago over 50 years.

JOSEPH de SILVA, Rock Island, who graduated at Northwestern University Medical School in 1893, died November 10, aged 80. He was one of the founders of the Rock Island Tuberculosis Sanitarium and a trustee of Joliet penitentiary.

JOHN ANDREW IKEMIRE, Palestine, who graduated at Illinois Medical College in 1904, died December 6, aged 73, following a lingering illness. He was a founder of the Ikemire Clinic in Palestine.

SIMEON R. JOHNSON, Divernon, who graduated at the University of Illinois College of Medicine in 1898, died November 8, aged 75. He had practiced medicine in Divernon for 50 years.

HARRY EVERETT KIRKPATRICK, retired, Itasca, formerly of St. Louis, Mo., who graduated at St. Louis University School of Medicine in 1903, died Nov. 3, aged 78, following an illness of several weeks.

DAVID MANSOWIT, Chicago, who graduated at the University of Illinois College of Medicine in 1931, died in the Albert Merritt Billings Hospital October 17, aged 44. He served during World War II; was affiliated with the Allergy Clinic at Mt. Sinai Hospital and on the staff of the Edgewater Hospital.

ALFRED P. MERIWEATHER, retired, St. Jacob, who graduated at Rush Medical College in 1889, died at the St. Joseph Hospital, Highland, November 7, aged 87.

IRVING PERLMAN, Chicago, who graduated at Chicago Medical College in 1929, died November 19, aged 48.

JORDAN W. ROSE, Chicago, who graduated at Chicago Medical College in 1938, died November 10, aged 39.

PHILIP F. SHAPIRO, Chicago, who graduated at Rush Medical College in 1928, died November 14, aged 45. He was formerly clinical associate in surgery at Loyola University School of Medicine.

ROBERT RUSSELL SMITH, Mount Vernon, who graduated at St. Louis University School of Medicine in 1907, died November 16, aged 70. He was a past president and secretary of the Jefferson-Hamilton County Medical Society, and former superintendent of state hospitals in Kankakee and Alton.

ALEXANDER FRASER STEWART, retired, Galesburg, who graduated at Rush Medical College in 1894, died November 21, aged 81.

JOSEPH RUSH TANNER, Chicago, who graduated at Meharry Medical College, Nashville, Tenn., in 1921, died September 15, aged 50, of cerebral vascular accident and hypertension.

FRANK ALTER ZIBELMAN, Chicago, who graduated at Chicago College of Medicine and Surgery in 1917, died November 18, aged 56.

CORRECTION

The Illinois Medical Journal, November, page 334, erroneously stated that Frederick Daird Culbertson graduated at The Hahnemann Medical College and Hospital of Chicago in 1906. The late Dr. Culbertson graduated at Northwestern University Medical School in 1906.

"For The Common Good"

Televised Health Talk Marks First Anniversary.— With its December 14 telecast, the Educational Committee completed its first year on television over WGN-TV. Dr. Clayton Loosli, professor of preventive medicine, University of Chicago School of Medicine, was the participant and Theodore R. Van Dellen, moderator. The subject was "The Common Cold." Visual emphasis was given to the telecast by means of slides and motion picture film. While this program marked the first anniversary of weekly telecasts on health education over WGN-TV, the first program of this nature was given over WBKB, October 9, 1948.

The Chicago Daily News, December 6, cited the weekly series as one of the outstanding programs on television.

Since the last Illinois Medical Journal, the following telecasts have been given:

Louise Tavs, University of Illinois College of Medicine, on Cosmetics and You, November 23. This telecast was enhanced with four models who demonstrated application of creams, types of soap and other procedures in cosmetic make-up, while Dr. Tavs explained the function and real care of the skin.

John Mart, Northwestern University Medical School, November 30, So You've Had a Heart Attack. This telecast was unique in that it was the first fluoroscopic demonstration of a living heart ever attempted for public viewing from a studio. Heart sounds were amplified to synchronize with the beating heart. The Standard X-Ray Company and the Cambridge Instrument Company cooperated in the telecast by making all necessary equipment available and in working with the WGN-TV studio engineers in perfecting the demonstrations.

James J. Callahan, Stritch School of Medicine of Loyola University, December 7, So You've Broken a Hip. This telecast showed the procedures taken in applying a splint and traction and the use of a traction bed. The Zimmer Splint Company and the William Ballert Company cooperated in providing the essential equipment. A "patient" simulated perfectly the position of a broken hip and demonstrated the protective splint.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society:

D. A. Dukelow, Woman's Auxiliary, South Chicago Branch, Chicago Medical Society, December 5, What School Health Means to You.

Alex J. Arieff, North Side Auxiliary, Chicago Medical Society, December 6, on Psychiatric Aspects of Everyday Offenses Against Society.

Winston H. Tucker, Evanston, Chicago Camping Association, December 10, on Environmental Factors on Camps.

Richard Young, John J. Sheinin, Harry M. Hedge, John T. Reynolds, Donald G. Anderson, Lowell T. Coggeshall and James J. Smith, all in separate sessions on "Medicine as a Career" in the Chicago Area Career Conference, sponsored by Chicago Technical Societies Council, Chicago Sun Times and the Illinois Institute of Technology, December 27-29.

Joan Fleming, Chicago, Mental Hygiene Section, Illinois Federation of Women's Clubs, Jaunary 9, moderator of film A Feeling of Hostility.

Herbert McMahan, Manteno, Watseka Community High School, and Kiwanis Club in Watseka January 9, on Alcoholism.

Groves B. Smith, Godfrey, Litchfield Woman's Club, February 6, on Mental Health Responsibilities on the Part of Community Organizations.

Frederic T. Jung, Physicians Fellowship Club Auxiliary in Chicago, February 10, Superstitions About Health.

G. J. Kidera, Berwyn, Hollywood Woman's Club, February 10, in Hollywood, on Superstitions About Health.

Arthur Rosenblum, Mental Hygiene Section, Illinois Federation of Women's Clubs, February 13, on The Emotionally Disturbed Child.

Harold M. Camp, Woman's Auxiliary, Chicago Medical Society, February 14, on The Medical Benovolence Fund: Its Functions and Financing.

Robert M. Karl, Woman's Auxiliary, Chicag), February 14, Present Trends in Nutrition Research.

Jules Masserman, Southlawn's Woman's Club in Chicago, February 10, on Growing Old Gracefully.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society:

Willard O. Thompson, Effingham County Medical Society in Effingham, January 10, on Uses and Misuses of Sex Hormones.

Philip Thorek, Whiteside and Lee Counties Medical Society, in Rock Falls, Sterling, January 12, on Pre and Postoperative Therapy in Abdominal Surgery.

James Hutton, Stock Yards Branch, Chicago Medical Society, January 10, on Hypotension.

Felix Tornabene, Aurora, La Salle County Medical Society, February 9, in La Salle, Acute Meningitis and Its Management.

Armand J. Mauzey, Chicago, Logan County Medical Society in Lincoln, February 16, on Sterility Problems.

Joseph N. Rappaport, Evanston, Henry County Medical Society in Kewanee, March 9, on Behavior Problems in Early Childhood.

NEW YORK RANKS FIRST IN HOSPITAL FACILITIES FOR POLIO

The number of hospitals in the state of New York admitting poliomyelitis patients for treatment is nearly twice that in any other state, a nationwide survey of 6,276 American Medical Association registered hospitals shows.

The survey was completed by the A. M. A.'s Council on Medical Education and Hospitals at the request of the National Foundation for Infantile Paralysis, according to a report of the council in the Nov. 19, Journal of the American Medical Association.

Statistics for 1947 of the 1,243 hospitals which reported that polio patients are accepted for treatment reveal that 146 of these hospitals are in the state of New York.

Texas ranked second with 76 hospitals admitting polio patients for treatment, and Illinois third with 70 hospitals. Pennsylvania and California followed with 62 and 59, respectively.

On the basis of control, 181 of the 1,243 hospitals are listed as federal hospitals, 294 under state, city or county control, 688 as church or other nonprofit associations, and 80 as proprietary hospitals.